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### *Reading of Papers*

#### CHAIRMAN'S ADDRESS—SECTION ON OPHTHALMOLOGY AND OTOLARYNGOLOGY.

EUGENE SMITH, M.D.  
DETROIT, MICH.

GENTLEMEN:—

In making me your chairman you have done me a very great honor, which I assure you I fully appreciate, and for which I am duly thankful. I wish to beg your indulgence for any short-comings of mine while in the chair.

It is with feelings of satisfaction and pride that I note the present status of specialism in medicine and surgery, evidenced in no small way by the members and professional standing of members of our own section. It seems but a few years since that physicians remarked disparagingly of specialists, and he who became an ophthalmic and aural surgeon placed his good name in jeopardy—in other words entered into quackery. In spite, however, of this attitude on the part of the general profession, ophthalmology and oto-laryngological medicine and surgery have been elevated in a scientific and ethical manner to the pinnacle upon which they now rest serene, recognized by all as being founded upon the sciences of anatomy, physiology and pathology, and derision has disappeared. It is my good fortune to have been somewhat of a pioneer in this good work and to have borne some of the early opprobrium. Hence, I say feelings of satisfaction and pride.

The past year has not been characterized by any great events in the world of our specialties; neither abroad nor at home have any great discoveries been made. Still I believe we may claim to be progressing towards greater accuracy in most departments of clinical and pathological knowledge, and much work has been accomplished in the true scientific spirit. As a section, one of our aims should be to secure the co-operation of family practitioners and get them to join us and assist in some of our discussions. I admit the difficulty in realizing

this aim, but we have many things in common, and it must be admitted that our special departments are not portions of the body separate and distinct from the whole. The details of operative practice may be and probably are of no particular interest to the general practitioner. I believe, however, we should endeavor to keep on a broad foundation, and that we may with interest and benefit to ourselves, occasionally invite a general practitioner to read a paper before our section bearing upon our several specialties, as for instance, "Graves' Disease," arteriosclerosis, Bright's Disease, diabetes, etc.

I believe less time should be given to reading of papers, and the time for discussion extended; also, that we might with profit attempt more in the way of organized discussions and we should have a stenographer. The making of accurate verbatim reports of our meetings is by no means easy. The employment of newspaper reporters seems impracticable, because of their lack of knowledge of the technical terms so freely used in all our discussions, and the natural consequence is a frightful number of gaps left to be filled either by the speaker himself, or by the secretary. Of course, the ideal report would be made only by a medical man who is a shorthand writer. This section needs and must have a shorthand reporter, notwithstanding the difficulties. It is true that in the discussion which follows an original paper, opportunity is afforded for all present to bring forward their quota of facts. This is not exactly what is desired. On such occasions men often speak from memory only and many, for lack of memory, do not speak at all. But few may have taken the trouble or have had opportunity to become acquainted with the author's views, this causes the discussion to savor of the impromptu and slipshod. Now, if our section had a small standing committee to arrange for the bringing forward each year, one or more definite questions concerning some special disease respecting which a brief, clear exposition should be printed in THE JOURNAL of our Society a month or so before the meeting, I believe great good would be done, and interest increased, and the facts

contributed will have been well considered. It should be the aim of a section like ours to play the part of a concentrating lens, as it were. Among our clearest duties, gentlemen, is one to the general profession: it is that of affording correct appreciations of the dangers arising from the use of certain common remedies.

Many of us have seen attacks of acute glaucoma caused or precipitated by atropine. Many of us have seen eyes lost through purulent ophthalmia when only boracic acid had been depended upon in treatment. No doubt similar, harmful examples exist in the ear and throat divisions of our section and it devolves upon us that some means be taken towards the relief of these evils. Among the organized discussion already suggested would it not be well to consider the subject of dangerous remedies?

In conclusion, gentlemen, I would remark, that we are assembled not only as devotees of science, hoping to derive mutual benefit from the interchange of opinions on themes of professional interest, and from new researches into the mines of scientific store to be unfolded, but we are here as fellowmen, bonded in the sympathy of common labors and pursuits, and entertaining for each other sentiments of esteem flowing from the elevated calling of which we are members.

Gentlemen—again I thank you.

#### THE OPERATION FOR CATARACT WITH A REPORT OF SIXTEEN CASES FROM A SERIES OF EIGHTY-FIVE OPERATIONS \*

D. EMMETT WELSH, M.D., F.A.C.S.  
GRAND RAPIDS, MICH.

In the reporting of these cases it is not my intention to advance any new methods or procedures or to condemn any given or selected method. My only desire is to describe and outline the methods I have employed and which have proven to be satisfactory to myself and to my patients.

There are certain minor as well as major conditions that should be considered; foremost we should consider the patient, his peculiarities, his anxieties and his fears as he gradually recognizes that his vision is becoming more and more impaired, his dread for operative interference, the meddlesome friends who impart to him the information of failure in this or that person who had sustained such an operation—all this causes the patient to become apprehensive as to the ultimate result of his condition. In view of this, we should not neglect securing the proper control and confidence of

the patient and thus secure his active co-operation in our work.

The important steps of the operation are:

The Preparation of the Patient.

The Technic of the Operation.

Post-operative treatment and care.

#### THE PREPARATION OF THE PATIENT.

A careful examination is made of the ocular and palpebral conjunctival and lacrymal structures. If the examination reveals these to be normal and the nares in similar condition, the patient is sent to the hospital. Should our examination, however, reveal an infective and inflammatory condition operation is deferred and the indicated treatment to overcome the infective or abnormal condition is instituted.

I prefer to have the patient enter the hospital twenty-four to thirty-six hours before the operation. This preliminary hospital residence permits him to become familiar with his new surroundings and nursing attendants and thereby an increased confidence is established.

A urinalysis is ordered and should this examination reveal a small amount of albumin or a low percentage of sugar the operation is not delayed or postponed on that account. The blood pressure is taken and if this is over 165 mm. mercury, operative work is postponed. The intestinal canal is unloaded by means of calomel in small doses and followed with a saline cathartic. A hot bath is ordered at bedtime.

The following morning, the day before the operation, and every three hours during the day three drops of a 10 per cent. solution of argyrol is instilled into the eye; it is allowed to remain for a short time and then it is washed out by means of a normal saline solution. The nares are sprayed every three hours with a 1-800 solution of potassium permanganate.

My preference for the time of performing the operation is in the evening, under electric light, the operation being usually done about eight o'clock. At 6 P.M. the eyebrows are shaved; the forehead and eyelids are washed with soap and water followed by a 1-4000 solution of bichloride of mercury. A compress saturated with a 1-5000 solution of bichloride is kept on the eyelids until the time of operation. After anesthesia has been produced the conjunctiva is washed with a 1-5000 solution of bichloride.

The instruments are sterilized by boiling and are then immersed in 70 per cent. alcohol, dried and suitably arranged upon a convenient stand before the patient is brought to the operating room. Absolute quietness is insisted upon.

These minor details I believe are helpful to the patient, who, though seemingly quiet and collected, is naturally sensitive to what is

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913.

transpiring around him and a most commonplace remark or a hint of levity may be construed by him into something different and an appalling danger formulated.

#### TECHNIC OF OPERATION.

The instillation of the anesthetic should be done by the operator and while doing so the patient should be the recipient of encouraging and assuring words. I formerly used a 4 per cent. cocaine solution to produce anesthesia but lately I have been using a 6 per cent. solution and in addition, holocain in 2 per cent. strength. The local anesthesia is readily attained but anesthetization of the iris is not so readily produced and calls for longer time in order that one may be positive that complete anesthesia exists.

The corneal incision is made with a narrow Graffe knife. This incision extends in an upward direction and includes about one third of the corneal periphery and its entire extent runs close to the limbus or close behind it. After passing the corneo-scleral junction the edge of the knife is directed into the conjunctiva about two millimeters. The knife is withdrawn and after a minute or two delay the formation of the flap is completed by means of a DeWecker scissors. I feel that in observing this pause or wait that there is less likelihood for blood to fill the anterior chamber and obscure the further operative steps. Prior to the completion of the conjunctival flap the fixation forceps are discarded for the remainder of the operation.

The flap completed, it is elevated and a few drops of cocaine and adrenalin solution are instilled into the eye. In making the iridectomy the Tyrel hook is used in place of the iris forceps.

To open the capsule a horizontal incision is made through its center. The lens is removed by teasing. I have had very little blood to obscure my view in opening the capsule, neither have I had loss of vitreous. Cortical remains are removed by teasing and if this is small in amount it is permitted to remain to be absorbed. Capsule remains are removed with a capsule forcep made from a pattern designed by our chairman. Entanglements of the iris are replaced. A compress of cotton covered with a 1-8000 bichloride ointment maintained by a bandage completes the dressing. A hypodermic of morphine sulphate, grs. 1/6, is administered upon the completion of the operation according to the recommendation of our chairman, thereby relieving many of the discomforts following the operation.

Vitreous loss has been small or nil in the majority of the cases. The instances in which accidents and disappointments occurred are described in the individual case reports. The remaining cases made good recoveries and left

the hospital within ten days. After the elapse of twenty days they were given correcting lenses. These patients had good useful and working vision and with proper fitting lenses their vision ranged from 20/70 to 20/20; reading, Snelling No. 1 to No. 4. Two cases gave vision of 20/20. The ages of the patients varied from 40 to 82 years. The average age was sixty-five.

#### CASE REPORTS.

CASE 1. Male, aged 82. Nothing unusual marked the operation or the course of healing. No complications occurred and the resultant vision was 20/20. The case is reported on account of the age of the patient.

CASE 2. Female, age 76. This patient was in an enfeebled condition but desirous of having the operation. The usual preparation and care was given for forty-eight hours. During the operation no complication occurred. There was a delayed union of the wound, but no inflammatory condition was observed.

Thirty days following the operation the patient had an attack of influenza and during a severe coughing paroxysm several retinal hemorrhages occurred. Prior to this there was light and form perception and she was able to count fingers at a distance of twelve inches. Complete blindness followed the retinal hemorrhages.

CASE 3. Male, aged 78. After introducing my knife and making its exit on the nasal side, I evidently pricked the eyelid margin. The eye was suddenly squeezed, the lid speculum was forced from between the lids and the knife forced from the entrance point. The patient was sent home and three weeks later a preliminary iridectomy was made; the lens was removed at a later sitting and a resultant vision of 20/70 was secured. The ophthalmoscope revealed choroidal change.

CASES 4, 5, 6, and 7. These patients developed a secondary cataract formation by reason of a web-like curtain that filled the pupillary space. Descision was made in these cases on two or three different occasions and vision was obtained varying from 20/70 to 20/30 with reading vision of Snelling No. 1 to No. 4 by means of properly fitted lenses.

CASES 8, 9 and 10. These patients developed iritis without cyclitic involvement that yielded to treatment with atropia and dionin.

CASE 11. Female, aged 52. During the various steps of the operation everything went along nicely and I was congratulating myself upon the completion of the operation as I began to arrange the dressings for the eye. Suddenly the patient complained of feeling faint; her face became very pale and a cold clammy perspiration was noted. Upon removing the pad from the eye, a quantity of blood escaped from beneath the lids. I retracted the lids and found the vitreous completely washed out of the eyeball. The eye was irrigated with a normal saline solution; a compress and bandage applied; morphine and atropine given hypodermatically and the patient returned to bed.

Panophthalmitis with its long and painful course followed and resulted in phthisis bulbi and blindness.

CASE 12. Female, aged 50. During the course of the operation nothing of importance occurred. There was a delayed healing of the wound as compared with the other cases, but no inflammatory condition of the iris or ciliary body was observed. She left the hospital on the twelfth day. I was called to see her three or four days later and found her suffering from an iritis. The eye was painful,



tender to the touch and the tension was increased. On the following day the eye was filled with blood. Cyclitis developed in connection with the iritic condition and continued with varying degrees of severity for three months. Upon the subsidence of this condition the tension was minus. The colobroma was filled with inflammatory exudates and blindness resulted.

These two cases impressed me with the necessity of taking the blood pressure of each patient before deciding upon operation. It had not been done, prior to operation, in these two patients. Upon the third day following the hemorrhage a pressure reading was made and showed a blood pressure of 210 and 200 respectively with a diastolic and systolic pressure of 160 to 165. Since then I have made it a part of my regular routine to take the pressure in every case.

CASE 13. Male, aged 56. On the tenth day following the operation I advised the patient to send word to his friend to come and take him home. The following day an influenza developed; two days later I found pus in the eye and a discharge from the nose. The culture taken from these discharges revealed the presence of the influenza bacillus.

Panophthalmitis developed, ran its long and painful course and was followed with a resultant phthisis bulbi and blindness.

CASE 14. Female, age 62. Nothing unusual occurred during the course of the operation. Thirty-six hours later the eye became painful. During the night the patient rubbed the eye. On the following morning the eye was painful and inflamed with marked chemosis of the ocular conjunctiva and an abraded condition of the cornea. Iridocyclitis developed and a severe hemorrhage filled the entire anterior chamber. After the subsidence of the irido-cyclitic inflammation a dense thick membrane filled the pupillary arc and a dense leucoma covered the upper third of the cornea. The lower third of the cornea was clear and the iris appeared normal. Three months later an iridotomy was done with negative results.

CASE 15. Female, age 62. This patient was very nervous. The usual care was administered and she was a hospital resident for three days prior to operation.

After making the corneal incision—which was a little difficult on account of the extreme nervousness of the patient—I waited a reasonable time; instilled more cocaine in the eye and lifted the flap so that the iris could be completely anesthetized. I introduced the hook, caught the iris and was withdrawing it when suddenly the patient squeezed the lid dislodging the speculum and forcing the iris hook out of the eye with the iris body completely attached to the hook. The lens and capsule pushed out and was followed by a mass of vitreous. I closed the eyelids holding them with my finger, and gently massaged the eye globe. After waiting for five minutes and upon opening the lids the vitreous was found back in the eye. The eye was bandaged and a quarter grain of morphia was given. The patient was returned to bed. Her hands and feet were tied and a special nurse placed in attendance. The eye healed rapidly and with properly fitted lenses the patient had a 20/70 vision and reads Snelling No. 4.

CASE 16. Male, aged 52. The conditions in this case were identical to those in case 15. With resultant treatment the patient recovered with 20/40 vision and reading, Snelling No. 4.

It is my opinion that there was a lack of complete anesthesia in these two cases.

In all cases in which there was evidence of cortical remains dionin, five per cent. was used with gratifying results.

To summarize this report: I have cited accidents and complications and in five cases complete loss of vision. While this report does not correspond with some of our present statistics, still the final results are known. It often occurs that when a patient leaves the hospital they are lost track of and they thus become unknown quantities.

A number of these cases, after being refracted and vision found to be 20/50 or 20/40, lacked confidence and self assurance in themselves which by reason of their long period of blindness and their dependency upon an assistant caused the ultimate benefit of the operation to be somewhat disappointing.

Many of the plans proposed for operative technic cannot be carried out by those of us whose cases are few. They can only be performed by skilled and experienced operators. It then remains for those of us who cannot be classified in this skilled class to adhere to that plan of technic that has proven satisfactory in our hands and has resulted in the minimum of failures and the maximum of good.

## OCULAR DISORDERS AS SYMPTOMS OF SYSTEMIC DISEASE.

P. J. LIVINGSTONE, M.D.

DETROIT, MICH.

This paper I present in part for the purpose of correcting the erroneous impression among general practitioners that they do not and can not know anything of eye diseases, and that the practice of ophthalmology is not something apart from the practice of medicine and surgery.

Permit me to say at the outset, in contradiction of this impression, I hope to make some illustrations to prove that in no department of special practice do findings carry greater importance than do the findings of the ophthalmologist in their relation to remote disorders, whether they be applied to determine questionable diagnosis of suspected disease of the gastro-intestinal tract, of the urinary apparatus, of the vascular system, or the more recently physiologically important processes governing the internal secretions, or of suspected intra-cranial lesion; indeed, I shall go so far as to say that in case of the undecided suspicion of a grave disorder of any one of the above named organs or functions, the diagnostician has not quite fulfilled the obligations of a careful complete examination if he has not at least carefully noted any extraordinary subjective ocular symptoms, and if he has not



also some knowledge of any possible changes from the normal in the fundus *oculi*.

In these latter days, when the tendency is to seek for some specific micro-organism or its toxin as the prime cause of most every ultimate symptom complex, no elements of the human economy are attracting more energetic attention than the vascular system and the functions of the internal secretions.

In relation to the former, whether one suspects a beginning arterio-sclerosis or some dyscrasia in the cell elements, long before the analysis of the urinary secretion will give you anything but negative findings, or before your physical examination will indicate any lack of resiliency in the vessels, or any single well marked pathological sign in sound or rhythm of the heart, the ophthalmoscope may positively demonstrate a peri-vasculitis in the fundus *oculi*, or at least a tortuosity or change in the calibre of its vessels. The neurologist and the laryngologist may together be in doubt as to whether a paroxysmal laryngeal spasm be the true laryngeal crisis of a tabes dorsalis, in the absence of a clear history of a luetic infection, or a permanent paralysis of the adductors of the vocal cords, but even at this time, to say nothing of the frequent presence of the Argyl-Robertson symptom, the ophthalmoscope may many times demonstrate an old choroidal atrophy, or organized old sub-retinal exudate, the only demonstrable remnant of the secondary stage.

Indeed, I think one might say, in most parasymphilitic diseases of the cord it would be hard to imagine a case progressed to the degree of marked ataxia or laryngeal spasm, without being able, if no fundus lesion be present, to at least elicit the history of ptosis or temporary motor ocular disturbance. I think perhaps the most important present evolution in internal medicine is that comprehended in the research into the possible physiology of the internal secretion, and their relations to so-called endogenous auto-intoxication, and it is regarding the possible results of this latter condition, also the results of auto-intoxication coming from an improper assimilation of food elements, or inadequate elimination of their end-products, that I wish to call your attention, particularly under the classification of headaches and eye-strains not curable by glasses.

I concede to you that it may sound paradoxical to hear an eye man assert that there are cases of headache and eye-strain which could not be benefited by glasses, but for the present at least I shall be honest with you and admit that I am convinced such is the case. Much fruitful result has been obtained by the application of correct refraction, for the relief of eye-strain due to asymmetry of the refractive media, and insufficiency and irregularity

of the ocular motor muscles; still I find many cases which after my most careful painstaking effort, I am unable to obtain the results to wit:—the greater comfort of the headache patient.

The chronic headache patients are individuals much to be pitied, and not more from the frequent suffering they are compelled often to endure, than from the unfairness of their classification; after brief consideration into cases needing glasses and allowed to choose their own way, often into the hands of the ignorant so called optometrist, or they are classified under the indefinite and unfair and uncharitable name of neurotic, and henceforward evaded as much as possible, or treated diplomatically with medicinal placebo. This class of "headache patients" often come to the oculist complaining of frequent attacks of frontal headache with the extreme sense of straining and tenderness of the eyeballs. They for the most part have malaise and mental depression.

They quite as often as otherwise answer that they are not constipated and have a good appetite, though closer inquiry reveals the fact that the bowels are not healthily active, and one often finds an unhealthy condition of the mouth secretions, offensive breath and other signs of imperfect gastric or intestinal function, and, perhaps, most important in this class of headache patients, one will almost constantly find a marked indican reaction on urinalysis. This class often reveal a scarcely perceptible error of refraction or a very low degree of error.

While I grant you that many cases with low error, particularly of the hyperopic form, compound or simple, are just the ones who reveal muscle insufficiency with consequent motor ocular strain, I am convinced that a large proportion of cases of headache and eye strain, even though a low error with heterophorias be present, have not their origin in this fact but that these ultimate symptoms are the result of a local manifestation of remote toxæmias. They may be the result of endogenous toxins due to changed conditions in the physiological bacteria of the intestinal tract from imperfect elimination, as indicated by indicanuria, or arise from the aberrant metabolism of the body cells themselves.

The gynecologist will perhaps not be surprised at my saying that many of these cases of headache and eye strain, even though a most careful pelvic examination reveals nothing wrong, as to lacerations or lesion, or mal-position of the uterus or its adnexa, still I am convinced that they are due to some toxin or toxins resulting from a departure from the physiological in secretion of the ovary. And why not?

Surely the profound changes that obtain in

the whole economy during the more active periodic secretory process of ovulation would warrant one in believing that the intermenstrual ovarian secretion, if varying far from the normal, may well act as an endogenous toxin, quite as important in its remote results as that arising in changed intestinal secretion.

The rhinologist should have a renewed interest in ophthalmology, since several intraorbital and ocular symptoms are entirely local manifestations of grave pathological conditions of the accessory sinuses, and particularly the ethmoidal cells and nasal extremity of the lachrymal apparatus.

To the general surgeon a study of the optic nerve has become a vast field of interest. Retrobulbar neuritis is to him a fixed clinical entity. Unilateral optic neuritis he knows is in many instances a local manifestation; and the relation of optic neuritis to brain tumors has for him an interest equal to that of the ophthalmologist. Moreover, decompression operation for the restoration of vision is a recent achievement which redounds mostly to the glory of the general surgeon.

#### CASES.

CASE 1. On April 23, 1910 Mrs. G., aged 43, presented herself about ten months after I had previously corrected her refraction for a rather high degree of irregular astigmatism, asking if there might not be some change made in her lenses, as she was suffering severe headache with dizziness and noticed rays floating about her in the air. I made pretty sure of her refraction, and the character of her subjective symptoms led me to suspect a toxic cause. Her urine had a marked indican reaction, and her blood pressure at that time was equal to 180 mm. of mercury. I referred her to a physician who she told me had not seen her for a year and a half. Though I have had no definite report, the patient herself has since told me she was under the physician's care and was much better.

CASE 2. On March 23, 1908 John K., aged 26, presented himself. He was an extraordinarily rugged appearing type of young farmer. Had been well all his life until two months previously, when he noticed sudden blurring of distant vision of his left eye. Specific infection could be excluded. He drank only an occasional glass of beer but used tobacco in excess, and was an inordinate eater. His father died of apoplexy at age of 50. His vision V. R.=20/20; V. L.=6/200. His blood pressure was 140 mm. Ophthalmoscope showed a considerable number of sub-retinal hemorrhages about his disc and macula, but no blood in the vitreous. His urinalysis was negative except for a quite marked indicanuria. He had a polycythemia; Reds 5,750,000—Whites 8,400.

After keeping him for some time under subconjunctival injections of salt solution with potassium iodid internally and a modified diet which excluded nitrogenous elements, I sent him home with mostly dietary instructions. At this time his vision had improved to 20/80.

He returned in three weeks, having had sudden blurring of right eye. Vision reduced to counting fingers at 18 inches. His vitreous was full of blood. His condition cleared up again.

The important feature is the possible etiology. Heredity may have been a feature, as his father died of apoplexy at 50. His use of tobacco another. But the fact that the man was a gormandizer I think important.

Herter has elucidated quite at length on the effects of foods in epithelial atrophy in the production of intestinal putrefaction, with resulting toxæmias of the blood. The possibility of such means of infection, coupled with the histologic structure of the vessels of the eye ground, namely, that there is in the larger retinal vessels an absence of the tunica media, and in the capillaries only an endothelial coat, would account for the arterio-sclerotic predilection ending in ocular apoplexy.

CASE 3. November 23, 1908, Mrs. M., aged 43, presented herself saying: "Doctor, I have been having very severe headaches lately, with some dizziness, and thought while in the city I would have you test my eyes."

She had a latent hyperopia of .75. In the routine of examining her fundus, the vessels presented a characteristic perivasculitis with a reduction of calibre of arteries.

This led to further investigation, by which I found some edema over the tibia. Urinalysis showed considerable albumen and a few hyalin casts. Pulse 86. Her blood pressure was 215 mm. I advised a saturated solution of potassium iodid to be increased from 10 minims, with dietary instructions, including large amounts of water.

On March 26th, 1909, she returned presenting the following conditions: Pulse 74, urinalysis negative as to albumen and casts, blood pressure reduced to 170 mm., having slight and infrequent headaches.

This woman might easily have drifted into the hands of some jeweler optician, any one of whom would have found urgent need of glasses and would then have passed her on to the realm of uremia or cerebral hemorrhage as a sacrificial monument to Michigan's legislation governing medical practice.

Some one may inquire how I am going to explain this predilection of toxins for a remote area as the ocular motor system and its nerve supply. My conclusions are wholly clinical from clinical observations.

So noted an ophthalmologist as Collins has defined arterio-sclerosis as a general disease with a predilection for certain areas, and in this statement he doubtless referred to its early demonstration in the vessels of the eye ground due to their histologic and anatomic structures.

The local manifestations of a toxemia of remote origin as eye strain, may be influenced by the constant function, voluntary and involuntary, of the ocular motor muscles. This fact, however, would play but a secondary role to the more important anatomic and embryologic facts.

Of the twelve pairs of cranial nerves emanating from the cerebrum, five pairs have their distribution in large part, to the eye or its

auxiliary structures. Recent histology has demonstrated the presence of pupillary as well as visual fibres in the optic nerve, and the presence of an abundance of lymph channels in the eyeball.

Embryologically the formation of the eyeball is initiated by a protrusion of the lateral wall of the primary cerebral vesicles forming the primary optic vesicles. These latter detach themselves more and more from the brain until finally they are connected with it only by the slender peduncle, the eye-stalk. This eye-stalk, originally hollow, becomes a solid mass, the optic nerve, and the external layer of the eye cup, to which it is attached, becomes the retina. Hence the eye-ball may well be termed a highly sensitized end organ of the brain.

Moreover, there are many filaments of the cervical sympathetic distributed to the eye which contribute to the possibility of ample reflex symptoms, all of which, so far as I know, are the most reasonable explanation of a predilection of remote toxæmias for the structures of the eye.

This, however, to the minds of those of you who study your patients' condition by deduction, leaves you with conclusions only as to effect, and gives no clear hint as to etiology.

I suggested previously the possible important role as an etiological factor of endogenous toxins, the result of improper function of excretory organs, or the non-physiological condition of any one of the several internal secretions, and confess that the isolation and detection of definite ptomains or toxins are necessary before one can assume all or any one of these as causes of any symptom complex.

But, because these cases reported, from their ocular symptoms, suggest toxæmia and some of the constitutional symptoms clearly pointed to gastro-intestinal and nephritic infections, I deemed them worthy of consideration from this point of view.

In our own country deScheiwnitz has been foremost in observing the relation of ocular symptoms to remote primary disorders, and has presented some interesting cases based only, however, upon clinical observation.

The earnest research which has been carried on during the last two decades has resulted at this present time in confirming the important part taken by the suprarenals, the thyroid, the thymus, the pituitary body, and the ovaries through their secretory functions, in maintaining or disturbing the healthy metabolism of the body. The earnest effort and the promise of results yet to be obtained are evidenced by the recent reports of Meltzer and others to the Council on Defence of Medical Research of the American Medical Association.

Much of what I have said is but suggestive and prophetic of the solution of many intricate

processes within the body—essential to confirm what are as yet but well grounded suspicions. However, when these suspicions have become established facts, I am sure it will be equally as obligatory upon the ophthalmologist as upon the internist to give them his careful study.

The chief purpose of my paper, however, is to make a plea to the end that these patients, who so often tire the gynecologist and the internist, and in turn the refractionist because he fails to give comfort by his refraction, have more consideration and more careful examination, if possible, to find definite remote causes and to the end that a more intelligent administration be made for their elimination.

307 Fine Arts Building.

### THE CARE AND TREATMENT OF DEEP AND SUPERFICIAL INJURIES OF THE EYEBALL \*

C. L. CHAMBERS, M.D.

DETROIT, MICH.

When we stop to consider the great number of eyes which are lost every year—eyes in which some useful degree of vision might have been retained, if they had had, from the beginning, proper care and treatment—it seems to me that the subject of the care and treatment of deep and superficial injuries of the eyeball is of sufficient importance to warrant my bringing it to your attention.

However, it is not my intention to take up your time with an exhaustive discussion of the many forms of injuries to the eyeball and its surrounding tissues, neither do I intend to mention each kind of an injury separately, nor the various forms of treatment that go with these according to the phases which present themselves in each individual case. It is my purpose to deal more in a general way with the care of such injuries as they come to us and the class of injuries with which I shall deal will be contusions of the eyeball, and penetrating wounds—incised and punctured, inflicted with such instruments as knives, scissors, fork prongs, pieces of glass, a pen, wire, chips of metal, farm implements, etc.

#### CONTUSIONS.

First, as to contusions. What may happen to an eye when a blow is first thrust upon it? The eyeball is a delicate organ, filled with many minute component parts all so completely adjusted that a dim ray of light sets its whole works in motion. This delicate organ can only escape internal and external disturbance by reason of its own elasticity, which is much less than we might at first assume,

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913.



therefore, under disrupting forces the contents must be torn assunder or the walls give way and allow these to escape. The rent will take place at the weakest place in the eyeball, that is, at the junction of the sclera and cornea, and if the blow be severe enough, the lens may be dislocated and escape through the opening under the swollen conjunctival tissues. It is not unusual to find that a wound made with a blunt instrument has become a penetrating wound without our being aware of it, therefore, unless one is careful to examine injured eyes thoroughly, as they first come to you, and unless you are familiar with normal tension, the appearance of the anterior chamber, the position, action and reaction of the iris, you may overlook this on account of the edematous and ecchymotic condition of the tissues.

From the effect of the blow, the iris may be torn either at its sphincter or at its root and hemorrhage take place into the anterior chamber or the vitreous, the latter condition being much more severe and serious than the former. Detachment of the retina, either in part or in its entirety, may follow as the result of the concussion, and the optic nerve be so contused as to produce immediate and total blindness, which, in a certain number of cases, is permanent. The injury to the optic nerve, however, is caused more often by fracture of the orbital wall, or by pressure brought to bear upon it through the edematous condition of the tissues, and by the exudates, rather than through the blow itself, although cases of blindness by concussion are known to occur not infrequently.

Subconjunctival hemorrhage making its appearance several days following a contusion injury of the eye is a diagnostic point of grave and serious import, as it is one of the most trustworthy indications we have of fracture through the anterior fossa of the skull. This form of hemorrhage, therefore, indicates a serious condition, which may be followed by death, so that in every case of injury to the head it is important to note whether conjunctival ecchymosis is present and whether or not it made its appearance at the time of the accident or several days later.

There are also certain diseases of the eye, which upon the first glance appear to be the result of an injury, and one might easily be led to make a wrong diagnosis if the patient gave a history of having received a blow at some previous date. I am now referring to those rheumatic inflammatory conditions of the eye, both acute and chronic, and inherited syphilitic inflammatory conditions seen in young adults. The appearance of such an eye, for a time, is somewhat like that of an ordinary contused eye and unless you are an adept in the diagnosis of the various forms of keratitis,

you may arrive at a wrong diagnosis and consequently be wrong in your treatment.

Ramsey states in the preface of his book, "Eye Injuries" "That promptness and decision of action in emergencies are the best tests of the power and resources of any man, and especially of a medical man." If this be true, it is most applicable in the emergencies arising in the traumatic injuries to the eye and especially those of the penetrating variety, for it is in these cases that the first few hours will often determine whether or not the vision shall be saved and the eye remain a useful one, or whether the injured eye itself and perhaps its fellow will be lost. In the country, emergencies are much more difficult to deal with than in the cities, as it is often impossible to obtain immediately many things that are absolutely necessary, therefore every practitioner should always carry with him an emergency supply for the instant demands of ophthalmic cases, and for this purpose a pocket set of ophthalmic discs will be found very convenient.

#### PENETRATING INJURIES.

Penetrating injuries of the eyeball are always serious and the chances of preserving a useful eye after a penetrating wound will depend largely upon the site and extent of the injury, the amount of the loss of vitreous, and the risk of septic infection. If the eye is not seen within the first forty-eight hours after the injury, in the great majority of cases it will probably be safer not to attempt any interference with the wound, but leave the case to nature, for within the first few hours an abundant supply of plastic lymph will surround the wound, which is nature's way of sealing, soothing and protecting the injured parts. Unfortunately this may lead to undesirable complications, which may forever destroy an organ that might have been saved.

Prolapse of the iris, secondary glaucoma, iritis, irido-cyclitis, traumatic cataract, distension of the eyeball, anterior and posterior synechiae, detachment of the retina and choroid, siderosis bulbi, atrophy of the eyeball, occlusion of the pupil, phthisis bulbi, anterior and ciliary staphylomata, and that most disastrous complication, infection, which may baffle all surgical precaution and skill, are often the consequence of improper or delayed treatment.

All these and many other complications too numerous to mention, could be entirely avoided or at least partially so, thus leaving good vision where only an impaired one is left, or an eyeball, where an enucleation was unnecessarily performed. These conditions and complications are the ones we are called upon to care for and prevent and the ones we must care for if we are to restore injured eyes to their use-

fulness. It is a pity to watch an eye from day to day in the throes of an irido-cyclitis and to wait for resolution which never comes until blindness and atrophy supervene; or to enucleate every seriously injured eye that we meet, either to cover our ignorance or our bad results. Failure in diagnosing early what has happened to an injured eye and what is taking place during the first few days, has condemned many eyes and relegated them to uselessness.

Surgery in Ophthalmology has kept pace with the progress of surgery in other branches of medicine, and eyes that were once lost are, to-day, saved and all or partial vision preserved, according to the site of the injury, its depth and its extent. Magnetic bodies in the eye do not cause the alarm they formerly did, and for this advance in ophthalmology we are indebted to Haab, Hirschberg and others for their magnets and localizing methods. To Darier, perhaps more than any other ophthalmologist, we owe some of our recent advance in the treatment of eye injuries. The fearlessness with which he injects antiseptic solutions in and about the eyeball has efficiently aborted invading infections, and no doubt, in many cases, prevented the same from occurring.

All penetrating wounds of the eye must be considered septic and this, beside the actual damage inflicted by the missile, must command our early and earnest consideration. The character, position and depth of the wound must necessarily affect the ultimate result. If, for instance, the trauma be in the region of the uvea, the chances for recovery will be more remote, especially if the wound is of any consequence at all. You will remember that it is through this body and through the adjoining structures externally that the blood and lymphatic channels are most abundant and that the avenues for infection are many and the infection will travel from that region deeper and farther to points almost inaccessible. Such injuries must be watched with great care and all precautions for asepsis duly taken lest not only the injured eye be lost, but sympathetic ophthalmia develop at some future time. You will, therefore, see the necessity of being cautious in the prognosis of such cases, more particularly when the injury took place at a time sufficiently prior to the date of the first consultation to have enabled a deep inflammation and perhaps a very menacing septic condition to exist. It is not uncommon to have an eye apparently get well and yet to gradually lose its sight or even shrink within the orbit, for the reasons I have just mentioned.

#### TREATMENT.

Being unable to go into detail in regard to the surgical and therapeutic measures which the conditions we have previously mentioned

demand, I will briefly state the principal modes of treatment that give the best results and which are in vogue at the present time.

Rest and purgatives first, then antiseptics maintained by the free use of antiseptic irrigations (argol and collargol discs may be used,) injections both deep and superficial of the cyanide of mercury, iodoform, cold applications, actual cautery, injections of normal salt to fill the eyeball if need be when fine silk sutures, wherever needed have been carefully placed—never through the sclera, but always in the superficial layers. Prompt removal of all iritic prolapses when fresh, or at some future time if fast, when the eye has assumed a quiet condition. Removal of traumatic cataract, especially if tension is increased or lagophthalmos or dilation of the eyeball takes place, especially in the young adult and aged, with the use of five per cent solution of dionin, for its physiological action if nothing more. Apply cold in the early stages and preferably heat after the first forty-eight hours, if reaction is greatly involving the iris and uveal tract, and if they have been more or less injured. If a cycloplegic is indicated, use it freely and continuously; if a myotic, follow the same rule, be ever on the alert for sympathetic ophthalmia, and if you suspect it, enucleate promptly. From four to eight weeks after an injury to the eye is the time to watch closely for sympathetic ophthalmia, that being the period when it usually appears. Five weeks after an injury the eye should be pale, if there are no complications. If an eye remains red for such a long time, there is some complication, as for instance, a foreign body in the eye. As the removal of an eyeball is a serious major operation, it should be undertaken only when we are sincerely convinced of its necessity and wisdom. This is not always easy to determine, but if we allow ourselves to be guided by the rules Swanzy formulated, I think we will make fewer mistakes and get better results. These rules, which I have never seen in print, are as follows:

1. I would remove an eye if recovery were hopeless and the onset of irido-cyclitis certain.
2. I would remove an eye if irido-cyclitis had already set in in the exciting eye.
3. I would remove an eye if irido-cyclitis and a foreign body is present in the affected eye, although vision be good in that eye as it is a source of danger to its fellow.
4. I would remove an eye if acute irido-cyclitis, traumatic or idiopathic, were present and vision lost, especially if tender on pressure, as it is a source of danger to its fellow.
5. I would remove an eye if phthisis bulbi were present.
7. I would remove an eye if sympathetic

irritation were present and sight of exciting eye defective and neurosis persistent.

8. I would not remove an eye unless it contained a foreign body which I could not remove, if its vision were good and no inflammation were present.

9. I would not remove an eye if sympathetic ophthalmitis had already appeared should vision of the exciting eye be good.

With these admonitions and perhaps last but not least, gentle care in handling sick eyes, you will get far better results than if the few points I have been able to touch upon in this brief paper had been left unheeded.

#### PRELIMINARY REPORT OF THE OCULAR DEFECTS OF SCHOOL CHILDREN TWO OR MORE YEARS BELOW GRADE\*

CLARKE B. FULKERSON, M.D.  
KALAMAZOO, MICH.

The data that we read about generally concerns the average population—so many have adenoids or enlarged tonsils or poor vision or the conditions are expressed in percentages. Very seldom do we see a certain class of school children studied in detail in regard to any one of these defects. I do not believe that this prevails for want of interest but for want of time and efficient clerical assistants. These assistants are not trained in medicine, not familiar with medical terms and phrases and are subject to the call of principals, teachers and special teachers when the medical man is at work. I have not been favored with the services of a nurse as an assistant though we have one working in the grades as a school nurse. The school curriculum is so crowded and the reports so numerous that special data frequently is lost.

We all agree that the correction of any physical defect of whatever nature is indispensable to the development of a high degree of mental and physical efficiency. The more perfect the ancestry, the higher the standard of the environment, the less do these defects influence the development and the efficiency. There are examples where a moderate degree of poor vision is overcome and a high standard of school work maintained. To substantiate this, I have taken from my case reports the following:

CASE 1. E. S., female, age 15, grade 10-1. Vision 20/70 in both eyes. Physically normal as far as we could tell. No history of illness during childhood. She is one year in advance of grade and her work is in A and B standard.

CASE 2. B. B., female, age 13, grade 9-1, vision

20/60 both eyes. Physically normal and ancestry good. History, negative. Nearly two years in advance of grade age but does standard work of A and B.

By the ophthalmoscope, these are cases of near-sightedness and are able to do near work easily without much strain. Secondly: The good standard of ancestry and the good physique contribute greatly to their ability to compensate for the extra energy required to do a certain amount of work. These are some of the exceptions and we should not be controlled by them.

To suffer throughout childhood from irritation or strain as may be caused by poor vision of the far-sighted type or marked degrees of myopic astigmatism, occasionally, is the beginning of some neurosis and once it is seated relief is remote. When we begin to study the product of poor or degenerate ancestry or a child developed in an unhealthy environment the more do we see the retrograde influence of these defects. The symptoms are very evident. The defective child complains bitterly of the visual defect that a nearly normal child is not conscious of. The one weak point in the method of the examinations of the eyes of school children is that some of the cases that read 20/20 or read normal need glasses badly. We have been instructed that we should not send recommendations to any children that read 20/30. I have spent some time in the examination of those that read 20/30. I found some that needed glasses badly and wrote out recommendations though our regulations do not permit this. Many good results followed. In the examination of these cases I depended upon the complete school, family and physical history. Too, I have attempted the systematic use of the ophthalmoscope for this class of cases but for want of time, dark room, and adequate salary I gave up in despair. With some of the cases of this group I made a desperate effort to get them to my office for examination. In this I was partly successful. Then I resorted to the beneficent influence of the school nurse who went to the home to obtain the parental consent to use drops. (In part successful, and in part failed, the latter more often than the former.) This mydriatic was for the purpose of diagnosis only. The people in our city are not quite ready for this step but with the adoption of an educative propaganda I believe that it will come.

Occasionally we find delinquency in the normal child as a result of a refractive error, but in the defective child this occurs more often. The below-grade child is an abnormal child, but there are cases where the physical condition is normal but on account of the parents moving about often the school record is checkered, and much valuable time is lost and below grade

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913. Read before Section on Conservation of Vision at International Congress of School Hygiene, held at Buffalo, New York, Aug. 28, 1913.



is inevitable. Some of the parents arrange their moving propensities to suit the school year. The greater the degree of feeble-mindedness or the lower the grade efficiency the greater the struggle and thus the greater the frequency of the moving. The study of the eye conditions of the below-grade child necessitates the study of the child as a whole and the many factors that may greatly influence the abnormality. The tendency is to limit one's field to the neglect of other fields. I remember very vividly when I first entered private practice I chanced to see a child that had adenoids enlarged tonsils, and poor vision. The latter condition was judged from the fact that the child saw everything small close to its face and the ophthalmoscope showed about 1 and  $1/2$  diopters of astigmatism. I gave the parents an exhaustive lecture upon the remarkable results obtained from the removal of the tonsils and the adenoids and the correction of the vision. Later to my chagrin I learned that the child was a mongolian imbecile and probably the correction of all these defects would have changed the condition but little. This is another exception. The low grade types are changed but little by the correction of defects. Thus the question arises when we meet such cases, why correct these physical defects in the feeble-minded? The very low-grade feeble-minded child is handicapped mentally and physically and the correction of these defects do not alter hereditary stigmata; and with the high grade feeble-minded and the below-grade child, these are unknown quantities. We never know what training will do for these people, but we do know that to attempt to train a child with these physical defects uncorrected, particularly poor vision, is greatly disadvantageous.

This group of children was made up of 54 males and 43 females. The average grade was the 4th. The highest grade attained was 7-1, the lowest the 1st. The average age was  $12\frac{1}{2}$  years. The oldest was 15 and the youngest nine. The average grade being four and the average age  $12\frac{1}{2}$  we may consider the group  $2\frac{1}{2}$  years below grade. The average vision of the group was 20/30. This is high because there were 16 of the group that read normal or 20/20 yet they complained bitterly of the symptoms of eye strain such as blurred vision, frequent headaches, injection of the sclera, marginal blepharitis, inability to see the blackboard without sitting in the front seats and history of styes. Some of these cases were examined by the ophthalmoscope and the parents were interviewed to obtain the consent of the parents to use a mydriatic for diagnosis but we were met with opposition. The one great drawback in our work in my city is the optician. There are several and they are waxing

fat by reason of the credulity of the public. They are licensed in our state to practice but they dare not use a mydriatic. They are not licensed in medicine. This is one of the dark chapters in our statutes. The cases in this group that obtained glasses from an optician are not improved.

Fifty-two out of the group of 97, or  $53\frac{1}{2}$  per cent. gave positive tests for visual defects. Some of the percentages given elsewhere range from 42, 45, and 66 per cent. for the defective child. There were but two that read below normal that did not give a history of some of the symptoms of visual disturbances. Their vision was recorded as 20/70 and 20/60 respectively. Those cases free from eye defect had the following conditions that contributed toward their inefficient work: Seventeen had enlarged tonsils and adenoids; one case of tuberculosis; two organic cardiac diseases, one of which resulted from repeated attacks of rheumatism, which was caused no doubt by the diseased tonsils present. No surgical relief would be adopted. Eighteen had some form of degenerative stigmata. A neurologist would have increased this number. Time does not permit detail in this regard. Nine of the eighteen had a visual defect—that is 50 per cent. of those with stigmata of degeneration had poor vision. When a child is under observation, the eyes should be the first point of attack. In this group, the eye defects outnumber all the others combined. The mydriatic would have increased this number to some degree, possibly 15 per cent. There were but two cases of pronounced muscular imbalance, or cross eye. This tends to show that the eye muscles are able to compensate to a remarkable degree the defect of vision. At times I think that some members of the medical profession as well as the public should be better informed upon this subject of imbalance of the ocular muscles. Occasionally, a recommendation will be sent home to consult their family physician about the cross eye and permit him to employ whomsoever he wishes. Instead of sending the case to an ophthalmologist, he says: "Let the eyes alone, the child will outgrow it." A mydriatic with the proper refraction will do a great deal toward establishing balance of the muscles.

There were three cases of corneal scars, one due to injury during childhood and the other two were due to ophthalmia-neonatorum. Most of these children are born under unfavorable circumstances and though preventive measures are adopted they may be infected subsequent to their birth. In Michigan there is a statute that compels all midwives and physicians to use silver nitrate in the eyes of the newborn. Some use one and some a two per cent. solution. I prefer the one per cent. solution and I do not wash out the eye with any solution but

allow the tears to neutralize the excess. One should be sure to instill the solution in the eye and not rub it on the outside of the lid and trust to luck that sufficient amount enters the eye. Of the 64,000 blind persons in the United States 6,000 or 7,000 were needlessly blind because this precaution had not been taken.

In the schools for the blind in Pennsylvania for ten years, the average that was needlessly blind was 33.68 per cent., and in New York the average for ten years was 28.14 per cent. There has been a great revival to stamp out this curse and a great deal has been done but there is yet much more that remains to be accomplished.

In this group there were two cases of the more rare abnormalities—traumatic cataract and hydrophthalmus. In the latter case the vision in the diseased eye was practically nil, in the right eye the vision was reduced to 20/60.

In conclusion I wish to emphasize the improvement of the methods for the examination of the eyes of school children and the more thorough study of eye defects in children below grade. These defects outnumber all other defects combined; that we enact legislation for elimination of the optician unless the standards for this work be markedly increased.

## INJURIES TO THE HEAD, AND EAR DISTURBANCES.

EMIL AMBERG, M.D.  
DETROIT, MICHIGAN.

The disturbances on the part of the ear in injuries to the head appears to be a subject which has not received sufficient recognition. It would be impossible to quote the many facts laid down in otologic literature, referring to this common relation, as the time and occasion do not allow it. Kirchner in Schwartz's Hand Book (Vol. 2, page 81) says:

"Yet in most cases an extensive injury of the drum membrane with profuse hemorrhage after a severe injury to the head allows us to draw the conclusion that the base of the skull is fractured. In such cases even the injury to the drum membrane is of secondary importance if the patient is lucky enough to survive, because also the parts of the middle ear and even the labyrinthian structures are very much affected so that the greatest damages to the hearing organ remain after the expiration of an inflammatory process which frequently lasts uncommonly long."

Gradenigo in the same Hand Book (Vol. 2, page 455) speaks of the indirect traumatic injury to the labyrinth. He says that the labyrinth may be affected by a fall or a blow on the head with or without a fracture of the cranium, and claims that even in serious cases the general disturbances caused by the injury disappear,

with the exception of those of the hearing organs and facial nerve. He says: "According to my observations, indirect injury can cause disturbances of the hearing organs and deafness."

Politzer and Urbantschitsch treat the subject extensively and the perusal of their data especially of the pathologic-anatomical findings are of great assistance for the elucidation of the subject matter.

If we consider the anatomy of the labyrinth it can be understood that such a delicate structure is easily subjected to an indirect injury while it is well protected against a direct injury.

Schwartz (2. 732 Hand Book) mentions that the concussion of the skull in chiselling off ivory-hard broad based exostoses is almost regularly followed by an increase in deafness lasting up to three weeks, which deafness can become complete for speech. He claims that this is caused by the severe concussion of the cranium and commotion of the acoustic nerve (nerve deafness by small extravasation in the labyrinth). In a patient of Lucae, whom Schwartz saw, the complete deafness, as the patient reported, disappeared only after a year. I mention this in order to show that comparatively slight blows can cause severe trouble of the ear. Politzer could demonstrate the formation of connective tissue in the labyrinth at an autopsy made in the fifth week after the injury.

I should like to call attention to one point in particular: We know how prevalent the ear disturbance is which goes under the name of chronic catarrhal middle ear affection or chronic adhesive process. When a patient suffering from such a chronic process, accidentally meets with an injury to his head and a rapid decrease in hearing sets in, we must assume, that the rapid decrease in hearing is due to the injury and not to the pre-existing condition which does not lead to such a rapid decrease in hearing. Politzer, (page 276—1908 Text Book) claims: That total deafness in these cases of chronic middle ear catarrh is, as a rule, rare, that it develops either gradually without plain symptoms or suddenly when complicated by an affection of the labyrinth. As the most frequent causes of such permanent or temporary deafness he records, colds, loud sounds, concussions of the skull, mental affection, excesses, cerebral and spinal diseases, syphilis and old age.

Politzer says: "In most cases of injury to the head, the injury is a severe one inasmuch as the patient is disabled for work for a long time, and because as a disturbance of hearing remains permanent."

I think that these experiences should be especially considered when giving an opinion in

court, as injuries to the head are rather frequent occurrences in our age of electric cars, automobiles, etc.

Examples illustrating the subject matter may be covered in some future paper.

In conclusion, I desire to state that the close connection between injuries to the head and disturbances of the ear is far greater than is generally accepted. A more careful observation, undoubtedly, will bear out this assertion. It is not correct to assume that a sudden deafness after an injury to the head is due to a pre-existing chronic middle ear catarrh.

### PARACUTIC DEAFNESS—A NEW EXPLANATION AND TREATMENT, WITH REPORT OF TWO CASES \*

WILFRID HAUGHEY, A.M., M.D.  
BATTLE CREEK, MICH.

Paracutic catarrhal deafness has been one of the dark spots in otology. The explanation of one of the most prominent symptoms, paracusis Willisii, has always been unsatisfactory, as has been the treatment. Many otologists have come to giving a gloomy prognosis when this condition is found and this prognosis has found its way into text books. In common with others I have been guilty of dampening the hopes of patients, but now believe I have a ray of hope to offer.

After exhausting all the literature at my command bearing upon this subject, as well as exhausting the patience of my patients with the old treatment, inflation, massage, etc., I came upon a reprint of Charles J. Heath, F. R. C. S. of London, Eng., during the past winter, and was so impressed with the theory and practice therein outlined that I determined to test it out.

It is not necessary before this audience to review the etiology, course or pathology of catarrhal deafness. Many of these patients suffer from paracusis Willisii; that is they hear better in a noise. This symptom, and its erroneous explanation, has probably lead to the prescribed treatment of the past.

#### DIAGNOSIS.

It is necessary to differentiate between catarrhal deafness with paracusis, and otosclerosis in which also paracusis may be present. In the latter there is a disturbance, a lowering, of the air and bony conduction of sound with a diminution of hearing through air conduction for high notes. In catarrhal deafness the air conduction for high notes may not be much interfered with, but bony conduction is in-

creased slightly, or not disturbed. In otosclerosis the drum membrane is normal or slightly thinned. In catarrhal deafness this membrane is flabby or retracted, the cone of light at an especially acute angle, and parts of the drum may be bound by adhesions to other structures in the middle ear.

#### ANATOMY.

It will be remembered that the long arm of the malleus is attached to the center of the drum. The malleus, in the attic, articulates with the incus which by a long process articulates with the stapes. The foot piece of the stapes is attached to the membranous oval window, one of the two apertures of the labyrinth. Thus vibrations are carried from the outside air through the drum, malleus, incus, stapes, and oval window to the labyrinth.

There are also two muscles in the tympanum, the tensor tympani and the stapedius muscle, of opposing action. The tensor tympani muscle arises from the under surface of the petrous bone, and the cartilaginous portion of the eustachian tube. A tendon passes backward to the tympanum, bends sharply outward around the processus cochleariformis, and is inserted into the handle of the malleus near its base. Its action is to draw the handle inward, thereby tensing the drum membrane.

The stapedius muscle arises from the sides of a conical cavity in the inside of the pyramid. Its tendon passes out at the apex to the neck of the stapes. Its action is to tilt the stapes backward, thus tensing the membrane of the oval window, and increasing the intra-labyrinthine pressure.

#### EXPLANATION OF PARACUSIS.

Various theories have been advanced to explain paracusis: loosening of the joints of the ossicles by vibration of the bones of the head; increased excitability of the terminal nerve filaments of the labyrinth; vibration of the cranial bones and the attending stimulation of nerve filaments and fluid contents of the labyrinth and cerebro-spinal spaces.

Kerrison in his latest book (p. 235) gives two explanations of paracusis Willisii:

"(1) The Tympanic Theory—that with pronounced rigidity of the drum membranes and ossicles the ossicular chain loses the power of responding adequately to the conversational voice, but that when set in motion by such gross sounds as the noise of the street or railway car in motion they regain for a time their responsiveness to the more delicate sound waves involved in conversational speech. (2) The Labyrinthian theory is that in advanced deafness even of tympanic origin the auditory nerve becomes more or less torpid and irresponsive to the voice sounds, but that when stimulated by loud noises it becomes simultaneously more responsive to the delicate and complex sound waves of the conversational voice."

He further says, p. 236:

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913.



"Paracusis is seldom met except in advanced stages when the ratio between air and bone conduction is reversed—it is probably in some way related to conditions bringing about fixation of the stapes—and to this extent is of some importance as bearing upon the prognosis."

#### HEATH'S THEORY.

The theory of Heath is that there is undue looseness of the membranes of the drum and oval windows and the articulations of the ossicles, thus interfering with the transference of the more minute sound waves. The stapedius muscle being supplied by filaments of the facial nerve, in common with other muscles so supplied, is more active than common muscles. Heath believes that the stapedius and its opponent the tensor tympani act as an accommodating apparatus in the ear, similar to that of the ciliary muscle in the eye. He believes that these muscles contract as a protective measure whenever sound waves strike the drum. The stapedius being thrown into contraction in the presence of sound waves the membrane of the oval window is slightly tensed, pressure in the labyrinth is increased, and the whole ossicular chain is more or less tense, as well as the drum. Under this condition sound waves are better transmitted and the patient hears better.

According to Heath's belief the sound waves are not ordinarily strong enough to tense the conducting chain sufficient to transfer sound, in the presence of paracusis, but a loud noise or rumble—such as a moving train, does throw the stapedius into sufficient vibration to tense the conducting apparatus and thus allow the passage of sounds impossible to hear otherwise. Heath cites the large number of deaf persons who have been in the habit of holding the alae and forcibly blowing the nose, thus frequently violently distending the tympanic membranes and conducing to the development of deafness. He does not attempt to explain the paracusis present in otosclerosis, unless the same explanation will hold.

#### RATIONAL TREATMENT.

Whether this theory is tenable or not, it is worthy of trial. Based upon this theory, Heath has attempted to treat the condition by in some way tightening the membranes and joints. If he is correct and the pathology is too much lost motion, the treatment by Politization and massage followed for so long is faulty. Heath devised his treatment subsequent to an attempt to close a large perforation by means of blistering fluid, in which he secured the restoration of a considerable degree of hearing.

He makes five solutions of cantharidin in the strength of blistering fluid (B. P.) to 50 per cent. glycerin—one to two, one to four, one

to six, one to eight, and one to ten. Applications of the weaker solution are made direct to the drum every day increasing the strength to get a reaction, then decreasing—but keeping up the inflammatory reaction. The drum should be cleaned each day and care should be taken not to touch the canal, as furunculosis might develop.

After about a fortnight there begins to appear over the drum, a thin whitish film, the drum itself becoming thicker. This film should be removed each day before the application is made. The dilution being made with 50 per cent. glycerin, keeps the drum moist, and a pledget of cotton is placed in the canal to aid in preventing evaporation. The drum is kept in a thickened condition for some time, —two or three months from the onset of treatment, when the treatment is discontinued for a month to allow sclerosing of the drum to take place.

This sclerosing tends to tighten the drum, and all the intratympanic tissues—and hearing gradually improves. Heath advises repeating the process once or twice, and reports a number of marked cases of improvement.

#### CASE REPORTS.

During the past six months I have followed out this treatment in two cases with, so far, good results, and shall briefly report them. Both are still under observation and are very much encouraged.

CASE 1. Gladys P. aged 14. Referred by Dr. J. J. Holes. She was a small sickly child from birth. As a small girl she had double otitis media following measles. Ears discharged for several months. The discharge reappeared every winter. For the past two or three years her parents have noticed that she was getting quite deaf and that it seemed to be progressing. Nearly two years ago she had tonsils and adenoids removed, which relieved the sore throat, and the discharging ears, but was not followed by improvement in hearing. She is in the fourth grade in school and the teacher has her in the front seat. Even there she was unable to hear the classwork.

*Examination.* The nose shows a considerable discharge with some crusts—a tendency to engorgement of the turbinates and a moderately crooked septum, but no points of severe contact. The pharynx and the throat are clear. The external auditory canals are quite large, and contain a considerable cerumen. The left drum is strongly retracted, causing the long and short processes to stand out prominently. Inflation does not entirely relieve the retraction although it is improved. The right drum is very irregular, the posterior and inferior quadrants being almost entirely gone. There is a considerable moist puslike accumulation in the ear. It is necessary to shout to make the girl hear. Paracusis Willisii is present, and a negative Rinne with increased hearing over the mastoid as shown by the hearing tests:

March 17, 1913.

|    |     |                      |                      |         |    |       |       |
|----|-----|----------------------|----------------------|---------|----|-------|-------|
| AD | 10  | 62                   | +                    | —52     | ac | 4'    | 1'    |
| W  | S+5 | C <sup>2</sup> A(90) | C <sup>2</sup> M(45) | C A(15) | R  | H(2') | V(78) |
| AS | 15  | 65                   | 4                    | —40     | 3" | 4'    | 1.5'  |

This is a catarrhal form of deafness since the air

conduction seems mostly interfered with. The tests with the whole series of forks might be interesting but were not made.

**Treatment.** The use of weak cantharidin solution was instituted at once in the left ear, the right being treated by dry cleansing and disinfection with swabs moistened in Andrew's Formula—(glycerine 7 parts and 95% phenol 1 part.) After a few days this ear was dry when cantharidin was used (the 1 to 4 strength) around the edges of the perforation. These applications to the drum were made every day except Sundays from March 17 to May 10. They were resumed June 2 and continued until June 25th when her vacation began.

In the left ear the drum has been thickened and drawn much more tense. In the right ear the drum began to regenerate, but I think I used for a time too strong a solution, for the ear began to discharge quite profusely following an exposure and rhinitis. This promptly subsided under treatment and the drum entirely regenerated being thick for a while, gradually thinning, and retracted somewhat. The child's hearing has improved constantly as testified by her teacher, by the visiting nurse in the schools, by her mother and by the following record of hearing tests:

|    | April 8               | April 22         | May 10             |                    | June 19 |        |
|----|-----------------------|------------------|--------------------|--------------------|---------|--------|
| AD | 30                    | 43               | 44                 | 45                 | 12'     | 5'+    |
| W  | C <sup>2</sup> A (90) | C <sup>2</sup> A | W=C <sup>2</sup> A | W=C <sup>2</sup> A | V (78)  | v (78) |
| AS | 30                    | 35               | 45                 | 55                 | 12'     | 5'+    |

The mother says that she used to have to go up stairs and shake the girl to wake her in the morning, but now she steps to the foot of the stairs and calls her the same as the other children.

**CASE 2.** Cora C., aged 26. She was perfectly well and normal like other children until 16 years old when she had scarlet fever—with no ear complications that she remembers. Five or six months following scarlet fever she noticed that she was getting deaf. She says she can hear voice, but can not get the articulation. She has a lisp which has developed since she has been deaf. She hears better on a train or street car.

**Examination.** She is subject to rhinitis, the turbinates congesting easily. Throat negative. The auditory canals are small but clean. The drums are slightly retracted, easily movable with the pneumatic otoscope and no inflammation noticeable. No perforations and no history of discharging ears. However, she says that as a girl she suffered with "catarrh" and has always blown her nose violently, holding the alae, and forcibly inflating the tympani in the process. Eustachian tubes easily inflatable.

She hears only a shout, but has for months been cultivating lip reading. The hearing examinations:

Oct. 5, 1912.

|    |           |                       |                       |    |        |        |
|----|-----------|-----------------------|-----------------------|----|--------|--------|
| AD | S         | 35                    | —27                   | ac | 2"     | 0      |
| W  | S (25)—15 | C <sup>2</sup> A (90) | C <sup>2</sup> M (45) | R' | H (2') | V (78) |
| AS | 9         | 37                    | —28                   | ac | 2"     | 0      |

Her father became somewhat hard of hearing at 45 and her mother at 40.

Treatment was instituted March 28, 1913 and continued daily with a week's interruption until June 20 when she suffered an attack of gallstones, and has gone to Colorado to recuperate.

In this case I have not used stronger solution than 1 to 6 and very slowly produced the inflammatory reaction. I have not at any time produced the discharge or odor spoken of by Heath. The hearing tests are as follows.

|    | April 29, '13          | May 10           | May 27           | June 18          | July 2           |    |
|----|------------------------|------------------|------------------|------------------|------------------|----|
| AD | 14-16                  | 18               | 25               | 31               | 34               | 4' |
| W  | C <sup>2</sup> A (90)+ | C <sup>2</sup> A | C <sup>2</sup> A | C <sup>2</sup> A | C <sup>2</sup> A | V  |
| AS | 12-14                  | 17               | 22               | 23               | 24-28            | 4' |

In both cases the theory was explained to the patient, and no promises of cure made. The

last patient was a stenographer but had to give that up following several months' treatment in Buffalo in an attempt to restore her hearing. She is now dressmaking.

In other cases<sup>1</sup> in which I have instituted this treatment I have not followed it sufficiently long to report, treatment being interrupted for one reason or another. One man aged 65—a boiler maker—and very deaf was taken to the hospital soon after instituting the treatment with rheumatism, followed by erysipelas of the legs. Treatment of his deafness was necessarily stopped. This treatment is long and tedious, and I find most patients will not submit without quite definite promises.

While I am not ready to promise much to patients, I feel that results so far warrant more investigation, and report this work at this time for the twofold purpose of securing the opinion of the section, and possibly stimulating someone else to join in these investigations.

## LYMPHANGITIS SIMULATING OTITIS MEDIA \*

LOUIS J. GOUX, M.D.

DETROIT, MICH.

The recognition of suppurative otitis media and the accepted treatment by paracentesis are now matters of such common knowledge that any practitioner failing to recognize and properly treat these cases or see that they are properly treated is regarded, to say the least, as considerably below the accepted standard of efficiency. The day of poultices and warm oils containing laudanum and other concoctions is past and as water seeks the lowest level so these practices have gradually been abandoned.

To permit spontaneous rupture of the tympanum is a practice which in the light of our present day knowledge does not reflect credit upon the attending physician. Free paracentesis resulting in ample drainage is practically the last word and keynote in the local management of these cases. With this matter practically settled we are in a position to give our attention to some of the refinements incidental to diagnosis and treatment. The basis of this paper depends upon two cases which are unique in the writer's experience and a search of otological literature furnishes no record of similar cases being described.

In order to make the subject of this article clear the writer desires to make brief reference to the anatomy and physiology of the lymphatic system of the cervical region. This sys-

1. Note, Jan. 3, 1914. I have another case now under treatment showing increase of hearing from 30 to 45 seconds and patient very much encouraged.—W. H.

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913.

tem consists of the lymphatic vessels and nodes, the latter commonly referred to as glands. Structurally the vessels are similar to the veins and in the cervical region are classified as the ectal or superficial and the ental or deep lymphatics. The nodes are distributed along the lymphatic channels usually in groups and consist of collections of especially arranged lymphoid tissue. The more important nodes are found lying close to the large blood-vessels. The functions of this system are recognized as being absorbent inasmuch as its chief function is the taking up of fluids from the tissues and conveying them to the venous circulation. The nodes are looked upon as stations for filtering the contents of the lymph vessels, extraneous matter being in this way removed from the lymph.

#### REGIONS OF PAIN.

The diagnosis of the cases about to be described was largely based upon a careful consideration of the seat of pain which, though general about the cervical and auricular region, was more intense at the locations known to possess lymphatic nodes.

These regions are divided into five separate areas as follows:

1. The occipital lymphatic glands located between the cranial attachment of the trapezius and sternomastoideus and receiving their lymph from the occipital, temporal and parietal regions.
2. The parotid lymphatic glands, ten or twelve in number, located on the surface and in the substance of the parotid salivary gland, the lymphatic vessels communicating with the concha, tragus, membrana tympani and external auditory meatus.
3. Mastoid lymphatic glands several in number situated on the cranial attachment of the sternomastoid muscle, near the mastoid process and base of the ear. Lymph vessels communicating with the parietal, temporal and occipital regions in part, from the helix, antihelix, convex surface and lobule of the ear.
4. Submaxillary lymphatic glands. This chain of glands are several in number and extend from the submaxillary gland to the mandible. The communicating vessels are mostly with the face and mouth there being also an afferent vessel to the parotid lymphatic glands.
5. Ectal cervical lymphatic glands along the external jugular vein between the platysma and sternomastoid muscles. The lymphatic vessels are largely from the superficial cervical tissues.

The ental, or deep glands of the head and neck, are mostly situated along the large blood-vessels and extend from the atlas to the thorax. The lymphatics of the entire head and neck

ultimately traverse this plexus. The lymphatics of the external ear and meatus form three principal groups which we will mention because of their direct bearing on the subject before us.

1. The vessels of the helix and antihelix wind around the free border of the ear to the convex surface where they join the trunks of that surface and uniting into several considerable vessels, they extend to the mastoid lymphatic glands.

2. The lymphatics of the external auditory meatus, the membrana tympani, the concha and tragus, terminate by two or three trunks in the parotid lymphatic glands.

3. The lymphatics of the lobule unite into seven or eight considerable trunks which extend to the caudal or lower mastoid lymphatic glands. As can be readily seen an inflammation of these lymph tissues and vessels so intimately related to external and middle ear would easily give rise to the symptoms characterized by the following cases:

#### CASE REPORTS.

CASE 1. Dr. S. Age 40. Was consulted by this patient Feb. 3rd, 1913. Patient had had earache since the night before and was suffering acutely at time of examination. Examination showed bulging hyperemic tympanum on right side. Paracentesis under gas anesthesia was immediately performed. Warm douches were ordered and patient was soon free of pain.

Next morning patient was apparently much improved and able to go to his office and attend a number of patients. Drainage from the ear was free and of a serous character. By noon the pain began to return and gradually increased. Morphia hypodermatically was administered with no alleviation of the pain. Hot douches were frequently used in the ear with no results. Hot and cold compresses gave no relief. The discharge was still copious and the character still serous.

The following day there was no abatement of pain, the discharge was still serous.

The next day, third day after paracentesis, the pain had become so much worse that a freer paracentesis was determined upon though the serous discharge was still copious. This was done under gas anesthesia. No improvement followed this second operation. It was noticed that though pain was continuous patient was most comfortable when perfectly quiet.

Pressure at any point around the ear elicited pain especially to the front and below. Pressure in the cervical region below the ear was also painful and was elicited on either superficial or deep pressure. No glandular nodules could be found. Temperature was not high remaining around 101° most of the time. Patient was slightly delirious on two occasions each time following a hypodermic injection of morphia.

Despite everything that was done locally or constitutionally including the use of vaccines the disease continued unabated for about one week, though it was ten days before all symptoms disappeared and the serous discharge ceased. Patient had previously suffered from pneumonia and pleurisy, is thin and anaemic. Discharge from ear showed pure pneumococcus infection.



The salient features in this case were the continued serous discharge not changing to pus and the persistent pain not relieved by free paracentesis. The middle ear appeared to be full of serum at all times no matter how large the incision. The discharge was copious and constantly saturated the dressings.

CASE 2. The second case was that of a child ten years old seen March 1st, suffering from otitis media of left ear. Paracentesis was performed under gas anesthesia followed by temporary relief of pain. Serous discharge came immediately after the incision. The following day pain gradually returned though the discharge did not diminish or change character.

The former case being fresh in my mind the cervical region was carefully examined and found painful to pressure the tenderness extending to a point below the ear over the mastoid and in front of the ear, the latter point being especially sensitive.

This case was much less violent than the first one though running about the same length of time. The discharge continued serous though hardly sufficient at any time to flow from the ear. The incision in the ear drum could be seen at all times and afforded ample drainage. This child was anaemic and apparently suffered from malnutrition.

In both of these cases there seemed to be no areas within or without the ears which were not painful or sensitive to pressure. Both cases dreaded to have any manipulation of the external ear, even the touch of the ear speculum being painful. Likewise both patients found local applications painful and this seemed to be more especially from the pressure rather than from the sensations of heat or cold.

In the writer's opinion the middle ear and membrane tympani were merely the mediums for the escape of the excessive lymph fluid which seemed to fill the tissues. The lymph spaces were engorged with lymph and this interstitial pressure no doubt gave rise to the pain and the extreme sensitiveness of the parts. In other words the patients suffered from mechanical pressure similar to cases of otitis media except that in the latter cases the pressure is all in the tympanic cavity while in lymphangitis the pressure is interstitial. To further elucidate the pain in otitis media is from pressure on the outside of the tissues while in lymphangitis it is from within or interstitial.

The nodes in close proximity to the ear were not swollen through exceedingly sensitive to pressure. Free drainage undoubtedly was responsible for the lack of swelling. The etiology of both these cases is somewhat speculative. They are both anaemic and apparently suffer from malnutrition.

In edema of the lungs of cardiac origin a small dose of morphine often does more good than all the stimulants. It may be the only treatment needed.  
—*American Journal of Surgery.*

## SOME POINTS IN THE TECHNIC OF THE SUBMUCOUS RESECTION

CHAS. H. BAKER, M.D. M.Ph.  
BAY CITY, MICH.

Since the introduction of the submucous resection a few years ago, its superiority over most of the other operations performed on the septum has become well established.

A well planned and executed operation leaves the parts in such a healthy normal condition, that barring the greater time and greater dexterity required on the part of the operator, it is the operation *par excellence* for any deformity or overgrowth of the septum which requires any operation at all.

Many instruments have been devised and many different plans of operation suggested, but I am firmly of the opinion that simplicity of technic and limitation of the instruments to a few simple ones, for the operators' unaided use, give the best results.

Like a good general, one must be prepared to change one's method of attack, after operations have been begun, owing to unexpected difficulties which may arise.

Provided you have an assistant, trained by yourself, in a long series of operations, there are some instruments you will find of great help, which the assistant will handle; but for most operators a relative or the office girl to hold the head are about all the help we have or can use.

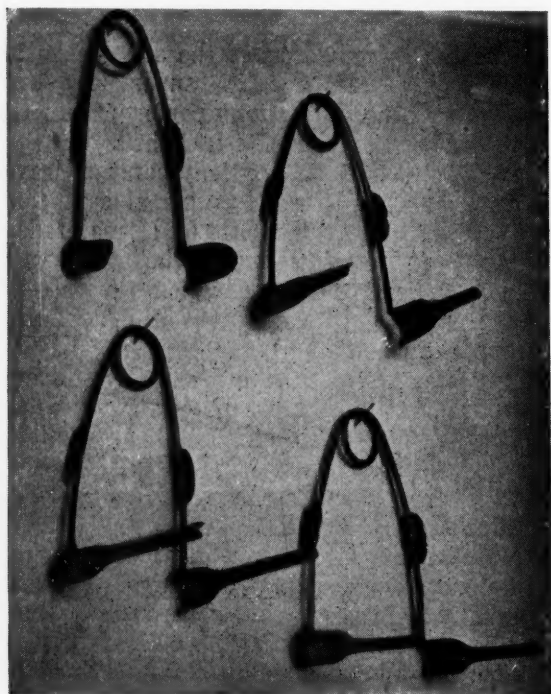
By far the majority of cases can be done through the slit incision of the mucous membrane parallel to the junction of the skin and mucous membrane, carried from about a quarter of an inch of the superior edge of the columnar cartilage down to and a little exterior to the middle line of the nasal floor, on the convex side of the septum.

The round end spade knife of Freer is the best for the purpose of making the initial cut, starting the elevation of the flap, and I find it also the best for incising the cartilage and beginning the dissection of the concave side. The edge needs to be fairly good but it is better not too sharp.

As soon as elevation of the flap is well started, change to the flat, blunt, thin bladed dissector of Freer working rather high up and as far back as you can. With the dissection made high and carried back in this manner you are enabled to reach the points of most difficult dissection from behind and it is my experience that the dissection is much easier from behind forward than in the reverse direction.

A word now as to speculums. I have always found Bosworth's wire spring speculum easiest to use and by some modifications which I have recently had made its usefulness has been greatly multiplied. The improvement con-

sists in a semi-tubular extension of the beak varying by quarters from one inch to two and a quarter in length. Using these beaked specu-



Author's Nasal Speculum.

lums, the membranes are better retracted than any assistant can do it and every point is under your instant control. By their aid the difficult dissection at the edge of the spur ridge is greatly facilitated, and the danger of perforation at this point much lessened.

When the convex side is free and the cartilage perforated with the spade dissector, the flat dissector is started under the concave side, the speculum shifted to the opposite side and the movements of the dissector watched under the membrane.

Division of the cartilage is seldom made at right angles to the surface, but rather in a slanting direction from before backward, thus lessening the chance of puncturing the mucous membrane particularly if your knife is not too sharp. The blunt dissector is inserted through a short incision, relying on extending the cut in the cartilage up and down after the dissection is far enough advanced to insure that no perforation will occur.

The edge of the spur and the corresponding angular depression are the common points for the toughest adhesions, and the dissection is here best done with the short bladed knife which cuts on an edge parallel to the shank.

Four instruments—spring speculum, spade, half spade knives, and blunt dissector—are all that are usually required up to the time when the flaps are thoroughly separated. You are now ready for the very ingenious Ballenger swivel knife for the removal of the cartilage.

Its introduction, without danger of one prong tearing a flap, is often facilitated by making a preliminary cut through the cartilage with the half spade knife. Cases have been reported in which sinking of the bridge has occurred after the submucous operation. If the swivel knife is not carried too high up, too close to the skin of the bridge, there should be no such result. It is easy to know the direction your knife takes if you sight along the shaft, do not enter it too high and are not too ambitious to get all the cartilage away which it is possible to remove. Never less than one-fourth inch in vertical height should always be left when the cut is finished.

Another use for the beak speculum is its introduction under both flaps—one blade passing through the slit in the cartilage, to spread the flaps out of the way of the Ballenger knife, on introduction. As soon as the cartilage is out of the way the blunt dissector should be used to carefully explore to see that no remaining bands are left to tear the flaps when the bone is being removed. As it sometimes happens that you cannot complete the separation of the flap, where the deviation is transverse, without first removing part of the cartilage, it can be left until the anterior cartilage is removed. At this stage the remainder of the dissection is comparatively easy because of the additional room obtained. For the removal of the bone plate and its base I use a straight chisel with its corners ground back, Van Struycken's alligator forceps, and a straight alligator forceps with long jaws.

First I bite through the cartilage and bone, left by the Ballenger knife, a short distance above the floor then again a quarter of an inch higher, and with the grasping forceps wrench out the tongue of bone between with a twisting motion. The removal of the tongue of bone thus made is very easy and there is no danger of the fracture extending any further than the cuts first made. Another cut is made above these and another tongue of bone removed, continuing the same process until you have cleared all the septum it is desired to remove except the triangular crest at the bottom of the septum. This is removed by placing the chisel against its anterior end, driving it straight back with the mallet until well under, when it is twisted on its axis and the ridge fractured off. This is the easiest method of removal and leaves the smoothest base of any of the plans advocated.

When all obstructing parts of the hard septum are removed, the membranous walls are placed in position and held in apposition for twenty-four hours by splints of gauze saturated in sterile vaseline and rolled in bismuth subnitrate. The gauze rolls are in two inch lengths of the diameter of lead and slate pen-

cils. These are packed on both sides of the septum from below upwards, until both nostrils are filled. Their introduction is greatly facilitated by the long beaked speculum, which holds the nostril open, acts as a directing slide to help them into place, and it can be so manipulated as to hold the membranes in proper place during the packing.

A full dose of morphine is sometimes given after the operation because of the discomfort and pain caused by the complete occlusion of the nostrils. Usually all the packing is removed at the end of twenty-four hours and no more is used. Should the soft parts tend to sag or resume their former position I place splints of cork, boiled in paraffine, in one or both nostrils. These are sometimes worn a week or ten days, being removed daily, cleansed and again boiled in the paraffine, which both sterilizes and makes them nonabsorbing. Cork has the advantage of being so easily shaped with a sharp knife to any form and dimensions required.

In closing I have a word as to results. Puncture of both membranes cannot always be avoided by the most carefully executed operation, but if the perforations do not come opposite each other there is usually no perforation left in healing. In spite, however, of the greatest care and a perfect dissection without perforation you are sometimes chagrined, a few days after healing is well under way, to find a slough forming at the point which represents the angular bend of the concave side and the ridge of the convex. I have attributed this to the opposition of two surfaces which often consist of scar tissue and at best are but poorly supplied with nutrient vessels. So long as perforation is confined to the mucous membrane, and none of the cartilage is included in the scar, little harm will follow; inclusion of cartilage leads to crust formation to the great annoyance of the patient.

This paper makes no pretense of describing the full technic of the submucous operation, which has been so much better done by others, but is intended to call attention to some of the procedures and instruments which help to simplify and shorten an operation which is a difficult and tedious one at the best.

#### PERSONAL EXPERIENCE WITH THE SUBMUCOUS OPERATION \*

ANNA ODELL, A.B., M.D.  
DETROIT, MICH.

The experience upon which the writer bases this paper has been gained from a series of about one hundred cases. Unfortunately, records of the early cases, mostly from the clinic,

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913.

were not carefully kept. The opinion of the patient for determining the wisdom of undertaking a submucous operation has been found to be of little or no value. As a rule, the patient is satisfied with his manner of breathing and is usually unaware of how much or how little he is using the nose for that purpose. The patient is questioned in regard to a history of frequent coryzas, of headaches, sinus infections, of diseases suppurative and non-suppurative of the ears, of hay fever, asthma, and in regard to his general health and resistance to infection and fatigue. In those cases where the obstruction is of a medium grade and the history is not such as to decisively favor a submucous operation, the examiner is in some doubt as to what to advise the patient. The nasal chambers are carefully explored before and after they are sprayed with an epinephrin solution, 1-6000 including about one-half per cent. cocaine. The patient is asked to breathe alternately through each side of the nose for a few minutes. Observations of the presence or absence of a stenotic breath sound and of the number of minutes during which the patient can breathe comfortably through each side are helpful in deciding for or against a submucous operation. If the operator has the opportunity to examine the nose two or three times at different intervals, the condition of the turbinates may be more accurately judged and their future condition after the septum is straightened estimated.

The writer believes that the turbinal tissue should be protected against needless removal. A study of the histology of the nasal tissues and of nasal physiology teaches us the importance in the nasal economy of the turbinal tissues and of preserving or securing the normal amount of space between the turbinates and between the turbinates and the septum. We must not expect to win for the patient normally functioning nasal chambers if we have to any extent caused the ciliated columnar epithelium to be replaced by squamous epithelium or by connective tissue and have interfered with the assistance which the capillary action of the normal nasal spaces gives to nasal drainage.

Hypertrophied pathologic turbinate tissue is removed advantageously in a considerable number of cases at the time of the submucous operation, provided that the operator has carefully estimated what the condition of the turbinates will be some months after the submucous operation and has been conservative in the removal of the amount of turbinate tissue. The combination in a single operation of these two procedures upon the septum and the turbinates is of great advantage to the patient. Since a greatly hypertrophied inferior turbinate upon the concave side will permanently obstruct breathing on that side after the obstructions



arising from the septum are corrected, it is most advantageous to remove such a turbinal obstruction and the septum obstruction at the same sitting. Unless done then, it is frequently never accomplished, for the patient dreads the experience of another nasal operation and frequently may lose confidence in the ability of an operator who has failed, by means of a major operation, to give him the comfort of nasal breathing.

It is wise to form the habit, when examining the nose, of searching for the presence of any syphilitic process, or the absence of bone or cartilage in the septum due to previous operations, for absorption due to disease and for any softening of the cartilage. The following case, known to the writer, is doubtless not an uncommon one:

A patient who had undergone one or more sawing-operations on the septum, submitted to a submucous operation at the hands of an inexperienced operator who did an incomplete operation. Later, in another city, an experienced rhinologist advised a submucous operation to which the patient agreed without mentioning her previous nasal experiences. The result of the second submucous was a very large anterior perforation which could probably have been avoided if the operator had placed the incision posterior to the field of the first submucous operation.

The operation in patients much beyond the age of fifty is unadvisable except in cases of chronic progressive middle ear trouble in which one is unable to introduce the eustachian catheter and in which there is a marked reduction and an alteration in the density of the air in the naso-pharynx.

#### AGE LIMIT.

The oldest case in the author's series is 52 years and the youngest, 12. The youngest had had a complete and well done tonsil and adenoid operation at the age of 9. There was a pronounced anterior deflection to the left involving the anterior columnar cartilage. The nasal breathing on the right side was fair. The operation was urged, for the patient was a day and night mouth-breather and pretubercular in appearance. The operation was done with only a partially satisfactory result because the operator found upon beginning the operation that to completely correct the obstruction would depress the patient's nose at the tip, for the reason that the pronounced deflection was far forward and the cartilage very soft. The hard palate was arched and this phase of the case was referred to an orthodontist. Authorities in rhinology do not agree upon the early age limit at which the submucous operation may be wisely done. One is justified in advising a submucous operation in certain patients under 18 years of age. These cases must be viewed conservatively and studied carefully before advising operation. In the

above cited case the operator would have been wise to have insisted upon delaying the operation for two or three years. A similar operation performed upon a boy of fourteen years of age had gratifying results. Previous to the submucous operation this child had had an incomplete tonsil and adenoid operation. The tonsil stumps were not large or troublesome and were therefore ignored, but the adenoid was removed. The pronounced obstruction consisting of both bone and cartilage situated in the middle region of the left nasal fossa was completely removed submucously and the lower border of the right inferior turbinate was very slightly trimmed. The child gained rapidly in strength and general health. Two years later the nose showed no anomaly in development. Obviously in these youthful cases the operator must preserve a generous amount of cartilage to support the bridge and tip of the nose, for it is a question whether there is not in young subjects a retarded growth of the remaining cartilage.

#### PAIN.

The author's experience would show that the operation is not painful, though attended by shock and in some cases pronounced shock. For this reason the operation had best be done in a hospital and with the patient in a reclining or semi-upright position. The operation appears to the author to be too severe for a suitable office procedure. If done in the hospital the patient is saved the considerable fatigue incident to undergoing the operation in street clothing, and to the trip home. Rhinologists, by doing so much of their operating in their offices, have accustomed the laity to consider nose operations in general minor ones.

The prospective patient is likely to offer the experience of a friend as a reason for not wishing to go to the hospital. Well-to-do patients who have had the operation done at the hospital have been pleased. The clinic patients without ice and help at home are certainly better provided for at a hospital. It is suggested that rhinologists by a concerted effort to make the submucous operation a hospital operation, will dignify and raise the character of their work. When submucous operations are done in the office the patients should be transferred to their home or to the hospital in a closed vehicle. The average case in this series was incapacitated for work for three or four days. One is much impressed with the great variation in the period of convalescence. The operation is never done during menstruation because of the increased danger of hemorrhage and decreased resistance to pain.

## PREPARATION FOR OPERATION.

Before the operation the patients have for the most part been given calcium lactate powders, twenty grains each, four times a day for twenty-four to forty-eight hours and instructed to eat a hearty meal preceding the operation. Recent observations made in the Buffalo General Hospital have shown that the coagulability of the blood is delayed in the patients who have taken calcium lactate over a longer period than twenty-four to forty-eight hours. Patients are invariably asked whether they have ever had any serious bleeding. Every nose and throat operator should be provided with the prepared horse serum now easily procured and be ready to use it hypodermatically or locally when a hemorrhage occurs. Its use as a prophylactic in anticipated cases of hemorrhage is recommended.

## THE OPERATION.

The operation is performed without the assistance of a trained nurse, in a chair the back of which may be adjusted at any level desired. If the patient bleeds freely he is kept in the upright position. Reasoning along the line of the *anoci*-association theory of not permitting any conscious or unconscious, harmful stimuli to reach the brain, the patient is not admitted into the operating room before the instruments and the operator are ready to begin. The outside of the nose and the vestibule are washed with soap and water. The inside of the nose is not doused under ordinary circumstances. The hairs of the vestibule seldom require clipping. They assist in keeping the nose clean during its recovery. The strictest asepsis is practiced in respect to the instruments, sponges, dressings and hands of the operator. To anesthetize, the nasal chambers are sprayed with a one-half to one per cent. cocaine in 1-6000 epinephrin solution. After an interval of three or four minutes a fine flexible probe slightly wound with cotton and moistened with a saturated solution of cocaine in 1-1000 epinephrin is gently rubbed over both sides of the septum including all the inequalities of its surfaces. The preliminary spray makes the subsequent swabbing unobjectionable to the patient. The rubbing of the septum with the probe serves a double purpose. It anesthetizes the field and gives the operator a valuable opportunity for a final scrutiny of the obstructions. The swabbing is followed by the injection at several points of a sterile one-half of one per cent. solution of novocain. The injections are made from an ordinary hypodermic syringe armed with a long hemorrhoidal needle which is provided with a protector to be screwed over the point when the needle is not in use. The injection of novocain completes the anesthetizing of the septum and fa-

cilitates the elevation of the mucosa and perichondrium. Novocain may be sterilized and resterilized without losing its activity.

The technic of the submucous operation consists of a great variety of instruments and methods. Descriptions of the operative procedures are not helpful in a paper unaccompanied by lantern slide illustrations. The writer desires to discuss briefly certain points of technic which she has found of value in this series of cases. The Killian specula with blades of three different lengths have proved to be particularly useful. They are serviceable for exposing both the nasal chambers and the intraseptal space. The position, length and form of the initial incision of the mucosa and perichondrium vary with the character and position of the obstructions and the location of the anterior free border of the cartilage which should always be sought. The incisions suggested and emphasized by Hajek, Killian, Freer, and Yankauer each have their place in the submucous technic. The operator should choose the type of incision which combines the least manipulation of the soft tissues with a large enough field to completely remove the obstructions. The employment of the same style of incision for all cases is unscientific. A generous incision, including the floor of the nose, is preferable to a small vertical incision which is attended with considerable bruising, stretching and tearing of the mucosa. The operator should be conscious of his mechanical limitations and in his early experiences tend to choose the larger incisions. In the series under consideration seventy-five per cent. of the cases have been done with a vertical incision. An increased amount of bleeding has been noted in the cases in which the incisions were made along or across the nasal floor. The incisions of the cartilage are made about three millimeters posterior to that of the mucosa. The piercing or wounding of the mucosa is prevented by holding the tip of a finger against the mucosa of the opposite side and by feeling the edge of the knife as the cartilage is cut. The operation is quicker and more satisfactory if the elevation of the mucosa can be completed on both sides before any of the cartilage and bone is removed. An elevator devised by Halle of Berlin has been found especially useful. The blade is curved on the flat, is heavier and stiffer than that of the Freer instrument but lighter than the blade of the Ballenger elevator. The curved dull blade is adapted for passing around the deflections without tearing the mucosa. It is heavy enough to use in bending the resilient cartilage in line with the posterior surface of the obstructions. Because it is smaller than the Ballenger elevator it does not occupy so much space in the operating field. In order to avoid tearing the mucosa it is elevated con-

siderably beyond the portion of the septum to be removed. The Ballenger swivel knife used has a handle bent at a right angle to the blade. Such a handle permits the operator to watch and control the blade during the cutting of the cartilage, because the hand is out of the way. The failure to leave sufficient amount of cartilage at the dorsum and tip of nose is much less likely to occur if the operator uses a knife with such shaped handle. The bony deflections of the ethmoid and vomer are removed with sharp cutting bone forceps. A crotch chisel with rounded ends driven with a mallet is used to loosen obstructions arising from the supramaxillary ridge and heavy pronounced ones arising from the vomer. At the close of the operation the field is carefully cleared of any debris but is not douched. Experience shows that the cases in which the soft tissues have been manipulated the least have the least reactionary swelling of the nose and make the quickest recovery. Few submucous operations can be done well in twenty or thirty minutes. One, two or three sutures of sterile black silk are used to secure the flaps. If there is a posterior tear of more than two or three millimeters it is sutured. A powder of one-half aristol and one half epinephrin powder is blown freely over the surface of both nasal chambers, which are packed as evenly as possible on both sides with one half inch adrenalin tape. If the turbinates on the opposite side from the initial incision of the mucosa have not been operated upon and there has been no hemorrhage, the packing on that side is removed in three or four hours. The nurse or attending member of the family, with instructions, can easily remove this packing with forceps, loaned if necessary for the purpose. The patient is made so much more comfortable by having the packing on the one side removed that one feels rewarded for following out this detail.

#### POST-OPERATIVE CARE.

Directions are given that the patient is to be placed in bed in an upright position with ice compresses to the bridge of the nose. If there is no bleeding within two or three hours, the ice may be discontinued and the patient lowered to a semi-upright position which had best be maintained for twelve to eighteen hours. One-half grain codein phosphate tablets are prescribed in every case to be given every hour or two for pain and restlessness. The patient is advised to take cold liquids for nourishment during the period of twelve to eighteen hours after the operation. All packing is removed from the nose at the end of twelve to eighteen hours. If there is little bleeding and the patient is not exposed to much dust a thin wafer of sterile absorbent cot-

ton is used for four or five days on the side of the mucosa incision. The stitches are removed in two or three days. The wound heals more rapidly and smoothly if sutures have been used to bring the edges of the mucosa and muco-perichondrium together. If the patient is much annoyed by the crusts and hardened secretions he is allowed to drop into the nose a warm normal salt solution with an ordinary medicine dropper. The use of the salt solution is not encouraged. The patient is warned to blow the nose very gently so as to avoid infection of the middle ear. A powder blower containing the mixture of aristol and epinephrin powder is frequently loaned to a patient who is likely to be particularly exposed to infection, with instructions to blow the powder in lightly once or twice daily for a few days.

#### OBSERVATIONS.

In seventy-five per cent. of the cases healing has taken place by first intention in four or five days. The healing by granulation has required from ten to fourteen days. In this series of cases a serious hemorrhage has not occurred. It has not been necessary in any case to continue the packing longer than the usual time of twelve to eighteen hours. One case developed an acute otitis media thirty-six hours after the operation. Fortunately the infection was a mild one. Paracentesis was done promptly and the ear discharged for only two or three days. There were no perforations. The obstructions in the early cases were sometimes not completely removed. In some cases a complete operation with a perforation is to be preferred to one which leaves a part of the offending obstructions with the mucosa intact. The incompleteness of some of the early operations was largely due to the operator's desire to complete the work in too short a time.

The results in this series of cases have been most gratifying to both operator and patient. Cases upon which the operation has been performed for mouth breathing and frequent coryzas have been wonderfully benefited. They have gained permanently in weight and appetite and have improved in color and general well-being. Two patients who came for treatment of a chronic laryngitis have during a period of about two years remained free of that affection. The tonsils in these cases were healthy and no adenoids were present.

The nose, naso-pharynx and tonsils of all chronic middle ear cases should promptly be made as perfect as can be for the function of breathing and as free as possible of chronic inflammation and bacterial foci. The author is not satisfied to inflate ear cases without first putting the nose and throat into as nearly a normal condition as possible. Similarly, it



is urged to remove nasal obstructions and points of pressure in hay fever cases in addition to the treatment with cauterizations and serum.

If well done the submucous operation has the merit of restoring normal function to an organ without the destruction of any of its functioning tissue.

32 Adams Ave., West.

### MASTOIDITIS \*

EDWARD J. BERNSTEIN, M.D.

KALAMAZOO, MICH.

It seems to me a very remarkable lack of appreciation of the gravity and importance of ear suppurations still exist among the general profession. I do not doubt that many will say I am wrong, and down in their hearts acknowledge that I am right when I say this. The majority of physicians still either neglect ear conditions altogether, saying as one doctor told me: "Well, what are we to do? Johnny Smith's mother will tell you that she has had a number of children who had running ears and they got well, and if she don't say that, her neighbors will. And as a matter of fact that is about so." We have either this type to contend with and educate or another, who recognize no incapacity on their part to undertake this most serious operation and with no adequate preparation or knowledge, attempt anything which offers a fee. Now this is not a wail, but a serious realization of conditions as most of us see them.

I feel that it is a large and pertinent duty of every well equipped otologist to help bring about a still better state of affairs, for we who see the grave results—either in late deafness or deaths attributed to typhoid fever, etc., when careful examination may have shown a mastoiditis—owe this duty to mankind. First of all: I believe we ought to be a unit in insisting that every ear suppuration is a serious thing; and, that in all profound infections of the middle ear, that the infection is not limited to the drum cavity but in all likelihood involves the cells of the mastoid as has been shown by Bruhl and Politzer in the dead house any number of times.

We should make it a solemn duty, the neglect of which may lay one open to most severe condemnation, in all cases of the exanthemata to strictly examine the ears at every visit and when there is any sign of bulging or pain which lasts more than a very few hours, to puncture the drum. It is an operation which every well equipped doctor can do and if he can not, he ought to learn or

be willing and anxious to call in some one who can. I believe it is infinitely more important for the family doctor to know these things than to try to practice refraction for it means more to their patients, and refraction is too intricate to be picked up as a side line and too many important questions are at stake, in the proper examination of the eye for it to be treated in this *dilletanti* way. That the spectacle dealer tries to fit eyes is no reason for the educated doctor to simulate his ignorant methods. In this day and age exactness and scientific methods alone should animate us; two wrongs never yet made a right.

I hold, however, that properly the treatment of suppurating ears should be in the hands of the properly equipped. It is our duty to see that the conscientious physician recognize the gravity of every ear suppuration and it is our duty to make bacteriological examination either by smear alone or by culture or preferably by both, of these conditions. We should keep before our own eyes the importance of appreciating whether we are dealing with a capsulated cocci infection or a non-capsulated infection. Under the latter head we are dealing with a staphylococcus or a streptococcus; under the former we have to deal with the streptococci *mucosus* and the diplococcus *pneumoniae*. Infection due to the mucosis is one of the most treacherous and deceptive. The symptoms are so mild, so gradual; at the onset the simulation to a simple ordinary infection is so perfect that even the most watchful and careful doctor may easily be deceived without the assistance of the culture and the smear. The patients may have had a running ear and be recovering apparently, when suddenly a high temperature and pulse accompanied by chills and pain warns us of the dangerous state of affairs. In these cases we often find almost complete melting of the mastoid process and sinus involvement.

A case in point will illustrate:

Miss D., aged 25, came to see me for deafness in the left ear of only a few days' duration; she claims that she has had no pain or suppuration from either ear, has had an attack of "grippe" prior to this. Examination showed the external auditory canal filled with polyps bulging to the orifice. Polyps do not come overnight and it usually argues an old suppuration. Under gas anaesthesia I attempted to remove them and probe for the cause of trouble. It was impossible to remove all polyps without a more radical operation than I was given permission to do and the probe showed deep bone involvement external to the drum. Smears and culture showed streptococcus mucosis. A day or two later a mastoid operation was done and the caries had involved the whole mastoid and all around the facial canal, leaving but a thin wall still protecting it; curetting without injury to the facial was impossible—it was injured and temporary facial paralysis resulted. The wound was treated by the improved Ballance method of Theirsch skin flaps and all suppuration ceased in a few days and the interior was fully epidermatized in two weeks. Hearing was not in-

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913.

terfered with—deafness had only been mechanical, due to blocking of the canal with polyps.

In that form of mastoiditis in which great protrusion of the auricle and swelling of the tissues over the mastoid occurs, we have no difficulty in persuading the family doctor and the family of the necessity of opening the mastoid, and yet this we know to be generally the least dangerous type, for here nature has broken through the barriers and the pus is under the superficial layers. In the other types where the swelling is boggy and edematous and which indicates a deep seated inflammation, with strong possibilities of involving the sinus and the threat of thrombosis with death as the ultimate outcome or cerebellar abscess is present, it is harder to have the conditions appreciated.

Possibly the most important and the least appreciated condition are the cases of chronic suppurations with or without fetid pus. If there is sufficient fetor, we are more likely to get the patients to accept surgical interference and cure. It is distinctly up to us to emphasize at all times the danger of chronic suppurative ears. We should impress upon those who have these patients in their charge, the fact that they are carrying a veritable sword of Damocles hanging over their heads at all times and the fact that many such go through life and live to ripe old age is no refutation of its danger. I am afraid the family doctor is too often indifferent to the loss of function in these cases to say nothing of the above mentioned threat. We who see these cases in their oftentimes hopeless and helpless condition can not but deplore the "let her go" policy. We should not alone insist that bacterial examination be made in all ear suppurations but a watchful lookout for increased mononuclears should be enforced. When the patient becomes septic we then get the increased polymorpho-nuclears. Then we are face to face with the most serious state of affairs. In the matter of prevention: I believe we have pretty well impressed most of the world of the importance of attention to pharynx and fauces.

Another phase of the question has been brought to our attention and that is the condition of the milk supply. The epidemics of septic sore throat—so called—which prevailed in Boston, Baltimore, Chicago and elsewhere has been the fruitful source of general infection manifesting themselves as rheumatism, septic endocarditis and pericarditis and mastoiditis. These have been the subject of investigation by numerous men, among others Drs. Capps and Miller and Dr. E. C. Rosenow of the Rockefeller Institute of Research. They found that the animals were infected with a streptococcic inflammation of the mammary glands and that many of the milkers were troubled with

septic sore throat. These conditions prevailed in some of the very best kept dairies in the land. I will not go into the details, they are at the command of any who do not know of them, in the journals and especially in that of the *Journal for Medical Research* of November, 1912. Suffice it to say that they seek to impress upon all the importance of not relying upon anything short of pasteurization of all milk; it seems to me a part of our duty to help the propaganda for pasteurization of milk if we wish to aid humanity in avoiding another prolific source of mastoid suppuration to say nothing of the other infections.

In the question of treatment of mastoiditis and what particular operation should be done, we have had our attention called to various apparent innovations—some good, others questionable.

In the last category, I think we are ready to properly place the so called Heath operation. I am aware it has some defenders, but the leading otologists are convinced that it is simply a variant of the simple and not a good one at that. It was the consensus of opinion at the last International Congress of Otolaryngology at Boston last summer that its conception had no sound basis in pathology or practice. From what I have seen of it, it seems to me that in the treatment of acute mastoiditis, it does do this—it certainly makes the after treatment much less painful; the opening which Heath makes, the plugs he uses and the large meatus he creates and the large specula he invented aid in achieving this.

In the radical operation, I have become an ardent advocate of Mr. Charles Ballence's method of large skin grafts and I am certain those who will study out his methods and use them will be gratified. One thing I should like to bring to your attention, in doing this operation and it is a point which he does not mention in his article but told me and others in a personal communication, and that is that one should not be alarmed at the very unpleasant odor which comes from the wound after a few days, and feel that an infection has started and remove the graft. It should be carefully watched and cleansed, as he outlines, and in a few days the odor disappears. The net result of this grafting is a quicker and surer recovery and better hearing.

As it is very important from a clinical standpoint to know if you are dealing with a capsulated organism or not, the question of stain enters very largely—the clinician, if he does not stain his own slides should make it clear to the bacteriologist that he is looking for the mucosus or capsulates streptococci. I am indebted to Dr. Perkins of the Upjohn Laboratory for the following, his permanent stain: Fix a very thin smear from the ear (not from

a culture tube, as you need the blood serum in the exudate) on the slide by *very* gentle heat—it is easy to spoil the smear by too great heat. Apply Fuchsin stain (which should be only half the usual strength) for one minute, the length of time depending on the appearance of the preparation under the microscope. One should therefore make two or three slides ready. Wash off the Fuchsin dilution with solution of copper sulphate 20 per cent.; dry with filter paper and mount in balsam. The organism is a bright pink and the capsula is from a light pink to a golden yellowish pink.

Another excellent stain is the Welch stain. Smear from exudate made very thin, fix by very gentle heat and a few slides not heated at all. Add glacial acetic acid from one-quarter to one-half minute; pour off excess acid; wash off the rest with solution gentian violet for one minute or so; wash this off with 15-20 per cent. solution sodium chloride. This section is to be examined then by simply placing cover glass over sodium solution with no balsam, as this is not a permanent stain. The gentian violet may be the anilin g. v. or the aqueous solution.

#### ACUTE PHARYNGITIS \*

BENTON N. COLVER, M.D.  
BATTLE CREEK, MICH.

Acute pharyngitis is one of the more common and less serious affections with which we have to deal. No doubt many more cases are cared for by home remedies than see the family physician or specialist. It is probable that large numbers of simple cases are ignored by the patients and recover spontaneously. This brief discussion, therefore, must find whatever of interest it may, not from the serious nature of its subject, but rather from certain clinical peculiarities.

#### ETIOLOGY AND INCIDENCE.

When one considers the adjacent structures that afford ideal culture grounds for the air-born bacteria, and the fact that nearly every "acute cold" affects the pharynx at one stage or another of its progress, he is not surprised at the frequency of this inflammation. The most commonly found organisms are the staphylococcus, streptococcus and occasionally the pneumococcus. The Klebs-Loeffler bacillus and other bacteria are sometimes recovered. Other factors in the etiology are: the lowered state of vital resistance incident to acute intestinal disorders or to the chronic intestinal auto-intoxication due to colonic stasis; illogical distribution of clothing which over-protects the trunk and leaves insufficiently clad ankles

and shoulders; exposure of the body unequally to cold by draughts or dampness; the sudden natural inclemencies in the weather and the artificial changes brought about by faulty ventilation and heating; irritants such as tobacco, alcoholic beverages and irritating foods, which beside producing a local irritation, also disturb the vaso-motor tone of the cutaneous and mucosal vessels; lack of attention to the hygiene of the nose, mouth and teeth; the habit of mouth breathing, by permitting the air to strike directly against the pharyngeal mucous membrane which is not adapted to withstand the irritation of air not tempered or moistened by the nasal membrane; noxious and irritating gases in the air; sedentary occupations which tend to lower the vaso-motor tone and weaken the resistance to infections; and any constitutional disorder such as gout or rheumatism.

#### PATHOLOGY.

The angina simplex passes through the stages of congestion, swelling, dryness, and secretory activity; the follicular involves in addition the adenoid tissue in distinct and localized swellings or nodules. In the first, the mucous membrane appears red and smooth; in the latter, it appears granular. It may involve the posterior wall, the palatal folds, the fauces, the vault or the sinus pyriformis. The uvula may be swollen and edematous. Occasionally the infection may be so intense as to form a pseudo-membrane or superficial ulcer.

#### SYMPTOMS.

The symptoms vary in intensity but may include a moderate degree of fever, malaise, tickling, dryness, dysphagia, coughing and irritative clearing of the throat, and expectoration of the viscid mucous which may be blood tinged at times, stiffness and tenderness of the neck and aching of the muscles.

#### COMPLICATIONS.

As already indicated, acute pharyngitis may follow rhinitis, sinusitis, tonsillitis, stomatitis, gingivitis or caries. On the other hand, it may precede rhinitis, laryngitis, bronchitis, tonsillitis, eustachian salpingitis, otitis media or adenitis.

#### CASE REPORTS.

I wish to discuss particularly a series of cases observed in my practice during the first six months of last year. These cases occurred by months as follows:

|                |    |
|----------------|----|
| January .....  | 12 |
| February ..... | 23 |
| March .....    | 38 |
| April .....    | 29 |
| May .....      | 19 |
| June .....     | 21 |

\* Read before the Section on Ophthalmology and Oto-Laryngology of the Michigan State Medical Society at its 48th Annual Meeting held in Flint Sept. 4, 5, 1913.



Some of these cases, to be sure, were recurrences or second attacks after an interval of a month or upward without symptoms.

The patients ranged in age from two years to over sixty years. The first case was observed probably two weeks before the beginning of the series mentioned. A brief description of it is typical of all, with the variations noted.

The patient complained of a dry stiffness of the throat aggravated by swallowing and worse upon arising, a tenderness of the sides of the neck on light pressure, and a general sense of languor. (In other cases, more usually in children, a fever was present never exceeding 102 degrees in my observation. In a few cases there was quite marked prostration analogous to that of beginning follicular tonsillitis.)

An examination of the nose, mouth, tongue, tonsils, uvula and posterior pharyngeal wall revealed nothing. On inspection of the pharyngeal vault, however, the mucosa was observed to be intensely red, very dry and shining. It seemed almost as if varnished. In most of the cases the process was confined to this area throughout and stopped at this stage though the trouble persisted usually from two to three weeks. In a few cases the fossae in relation to the epiglottis and larynx were similarly involved. (Vallecula, sinus pyriformis and pharyngo-epiglottidean fold.) In some of these latter cases the sinus pyriformis remained as the site of persistence for the longest time.

In a few cases after a definite period of dry inflammation the follicles of the posterior wall became involved—making swollen follicles one-half inch by one-quarter inch in size. In a still less number, there appeared a severe superficial necrosis affecting either the mucosa overlying one or more of these follicles or along the lower border of the posterior pillars. In most of the cases there was adenitis of the deep cervical glands. In all the cases in which bacteriological examinations were made, the prevailing and apparently causative bacterium was the staphylococcus pyogenes aureus.

#### TREATMENT.

The usual treatment yielded results but slowly. Gargles were obviously ineffectual. The use of argyrol, silver nitrate or oily atomizer solutions did not seem to benefit much. Alternate hot and cold applications to the neck during the day and the heating compress worn during the night seemed to relieve somewhat, especially the tenderness. The most apparent relief to the patient came from the inhalation through the mouth of steam either plain or impregnated with the compound tincture of benzoin. As mentioned above even with active treatment improvement was slow. Often after an interval of one, two or even three days of complete relief, the symptoms would again be

present on the following morning. In none of the cases was recovery attained under two weeks and in some cases it was upward of six weeks, before the patient was free from relapses.

The particular interest of this series of cases depends upon the following facts: (1) They were all primary infections, none of them being evidently preceded by any other nose or throat infection. (2) They were largely free from extension, most of them beginning and ending on the respiratory mucosa of the vault, two or three showing catarrhal tonsillitis and four of them (in children) developing otitis media. (3) They were without secretion, the excessive dryness of the mucosa persisting throughout. (4) The discomfort to the patient and the persistence were out of all proportion to the apparent pathological changes and the bacteriological findings of the laboratory. (5) The epidemicity was high, as practically all the members of infected families, room-mates in the training school dormitories, all the staff in the nose and throat department and others at all closely associated with affected patients sooner or later suffered from the infection.

#### THE MORLEY EAR-PHONE

The Morley Invisible Ear-Phone, Morley Company, Philadelphia, Pa., is nothing more or less than the old, well-known Toynbee artificial drum-head. It consists of a circular piece of oiled silk about one-quarter inch in diameter, through the center of which a piece of silk thread has been passed, for the purpose of holding the oiled silk in position. A small piece of flexible tubing comes with it to aid in inserting the device in the ear. The indiscriminate sale of a device of this sort, especially at exorbitant prices and under fraudulent claims, is not merely an injury to the purse, but a distinct menace to the health of the deaf (Jour. A. M. A., Nov. 22, 1913, p. 1919).

#### VEROFORM GERMICIDE OMITTED FROM N. N. R.

Veroform Germicide is described in New and Non-official Remedies, 1913. It is a formaldehyde soap solution, containing 20 per cent. of formaldehyde. The report of the U. S. Public Health Service on commercial disinfectants having shown Veroform Germicide to have a phenol co-efficient of but 0.43, the manufacturers of the preparation were asked to present evidence to justify the term "germicide" in the name and the claim that it has more bactericidal effect than phenol. As the Veroform Co. produced no evidence to substantiate the questioned claims, the Council on Pharmacy and Chemistry voted to omit the preparation from New and Non-official Remedies. (Jour. A. M. A., Nov. 22, 1913, p. 1920.)

#### MOUTH WASHES.

Recent investigations seem to show that adherence of mucin caused decay of the teeth. So-called antiseptic mouth washes and alkaline washes do not remove this mucin and therefore do not prevent decay of the teeth. The vegetable acids such as fruit juices and diluted vinegar are the most successful agents for the removal of mucin. (Jour. A. M. A., Nov. 8, 1913, p. 1718).

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FEBRUARY.

### Editorials

#### THE CONSERVATION OF VISION.

Conservation of animal life has long received very considerable attention from the national government through the Department of Agriculture as well as through the efforts of State Agricultural Colleges and individuals. Conservation of national resources has also come in for its share of public attention and governmental effort. Attempts at effectiveness and economy have spread like leaven through the various walks of industrial life. In medicine as elsewhere this mighty force has been felt and preventive medicine has made giant strides in many departments from the reduction of infant mortality to the splendid achievements on the Canal Zone.

Ophthalmology has not been negligent of this great movement to prevent rather than cure the ills to which man is heir. Ophthalmologists have, however, recognized that conservation of vision can be advanced only by the co-operation of numbers of workers, many of whom must come from the ranks of those out-

side Ophthalmology. The prevention of blindness used to be the object of effort but this has been supplanted by the wider conception of the conservation of vision as this includes the older term. The American Medical Association has had a committee studying this problem for a number of years and the Russell Sage Foundation has given valuable support to the study of the facts and their causes. The work of illuminating engineers, social workers, philanthropists and others have all been of service.

While the progress of medicine is constantly removing certain cases from the hopeless list, still the application of the facts we already know would go far to conserve the vision of the coming generation and prevent many from spending their lives in darkness or with impaired sight and inefficiency. Clinics can and have been made much less wasteful by a system of following up patients in their homes and making sure that the necessary treatment is being carried out as advised. For example at the Boston Dispensary Eye Clinic only about half the patients advised to wear glasses actually secured them until a trained worker followed up these cases when this percentage was gradually reduced to about five per cent. Cases of iritis have been encouraged to continue treatment until cured and in this way poor results were avoided.

It is recognized that the needs for conserving vision vary with the different sections of the country and what is a burning question in one locality may be of little importance in another. Thus in certain sections of the mountains of Kentucky and among some of the Indian tribes the question of trachoma is an all important one, while in other regions, thanks to the efficient work of the Marine Hospital Service at the various ports of entry, the disease hardly exists. Among some people glaucoma is much more common than elsewhere and the newer operations of sclerectomy will be helpful.

Syphilis being a common cause of impairment of vision, the newer and more effective treatment of this disease tends here to conserve vision. In some regions industrial conditions make injuries to the eyes much more frequent and in many such places new workmen's compensation acts have tended to provide safeguards where possible, and speedy treatment for injured eyes, all tending to reduce this important cause of visual disability.

Ophthalmia neonatorum has received very considerable attention and will doubtless continue to receive more and more until its ravages are very materially curtailed. It has been and still is one of the chief causes of blindness, and Massachusetts has recently demonstrated that it is possible to reduce the ordinary ten per cent. of blindness from this cause to two per cent., a very notable gain as this attacks

individuals at the beginning of what may be a long life.

Illuminating engineers are giving more and more attention to the question of the proper lighting of rooms not only by artificial means but by daylight properly distributed as well. One has only to observe store windows, theaters, libraries and other public places to realize what strides have been made in recent years in this very practical means of conservation of vision. On the other hand it must not be overlooked that the immense popularity and almost indefinite multiplication of the modern moving picture show is a factor which cannot be regarded as tending toward the conservation of eyesight.

There are at present organizations for the conservation of vision in Arkansas, California, Indiana, Kentucky, Massachusetts, New York, New Jersey, Ohio, Pennsylvania and Wisconsin. The Michigan State Medical Society has long had a committee studying the needs of school children and educating the public and the profession in this direction. The Detroit Board of Health has done considerable work through the medical school inspectors and their special clinics. The Children's Free Hospital has a ward devoted entirely to the care of cases of ophthalmia neonatorum. Much, however, remains to be done. Ophthalmia neonatorum should be immediately reported to the health officer and preventive measures much more widely used. School children with defective eyes should be put under exceptionally favorable conditions and allowed to acquire their education with a minimal damage to their ocular apparatus. The initiative for this work should come from the medical profession either on boards of health or organized in local and state societies. To secure the widest success, however, active and earnest co-operation must be had from a large circle of general practitioners, ophthalmologists, social workers, philanthropists, etc. The problem is in the end an educational one and becomes more and more vital as civilization throws an ever increasing burden on the delicate organs of sight.

RAY CONNOR.

### OTOLOGY.

Otology has participated in the steady forward march of medicine. No revolutionary and startling progress can be recorded. The situation concerning the surgical treatment of affections of the labyrinth is beginning to become clearer. A valuable opinion, at present, is expressed by Whiting who says: "A symptomatology which shall clearly establish the indications for operative measures in all inflammatory diseases of the labyrinth is, we

fear, a labor of the somewhat distant future, for our acquaintance with labyrinthine conditions is a relatively recent one, and such knowledge as we possess, while very helpful in guiding us to satisfactory conclusions in our more simple cases, still falls short of providing convincing evidence in those dubious and perplexing problems with which private and hospital practice so frequently confront us."

Kerrison, speaking of the indications for labyrinth operation says that there is no field of surgery in which dogmatism is so unwarranted as in the case of the infected labyrinth. Certain conditions, however, which in themselves constitute so grave a menace to the patient's life or his comfort in living constitute a more or less definite call for surgical intervention. Kerrison mentions the following: (1) Labyrinthine infections quickly following surgical injury to the stapes. In such cases surgical intervention should be prompt—before meningeal infection shall have time to take place. (2) Suppurative labyrinthitis complicating acute purulent otitis media and accompanied with high fever, rapid pulse, headache, etc., etc., unless the fever, headache and pulse rate show very early and progressive tendency to subside, prompt drainage of the vestibule would seem to be called for. (3) The acute stage of a suppurative lesion of the labyrinth being passed, the evidences of a latent suppurative labyrinthitis plus symptoms of chronic middle ear supuration calling for relief, would in his opinion constitute a fairly definite indication for operation on the labyrinth. (Whiting says that in cases of chronic purulent otitis media in which the existence of chronic diffuse purulent labyrinthitis is demonstrated, either the labyrinth should be done or none at all). (4) Physical evidence found during the radical operation, of intravestibular suppuration, as shown by pus escaping or granulations protruding from the oval window or from a defect (fistula) in the promontory, or, the presence of a fistula leading to the vestibule through the horizontal canal, such findings would naturally leave no question as to the necessity of surgical intervention.

Uffenorde divides the indications for an operation on the labyrinth in absolute and relative. Absolute indications are: (1) All cases of labyrinthian suppuration with labyrinthogran endocranial complications. (2) All cases in which a cholesteatoma has penetrated in to the labyrinth. (3) All cases with the formation of empyema in the labyrinth in which pus comes out of a fistula under pressure. (4) Tuberculosis of the labyrinth. The relative indications in which the personal experience and judgment of the surgeon must decide are cases in which the inner ear is totally unexcitable.

Leidler, in Alexander's clinic, comes to the



conclusion that the labyrinth should immediately be opened in the following instances: (1) Each diseased labyrinth caused by suppurative otitis media, acute or chronic, which is combined with labyrinthogen intracranial complication must be opened immediately. The slightest degree of endocranial complications must be considered out-spoken, constant headache localized on the side of the affection. (2) Each labyrinth which on the base of an acute or chronic otitis becomes diseased with the symptoms of an acute diffuse labyrinthitis, i. e., deafness, nystagmus of the third degree to the healthy side and lack of response to the turning and caloric reaction. Such a labyrinth must be opened immediately if the temperature reaches more than 100.4° F., or, if the symptoms last longer than four days with unremitting severity. (3) A labyrinth which is functionally entirely destroyed on account of an acute or chronic otitis and which does not show the conditions mentioned under one and two, must be opened immediately, following an antrotomy radical operation if it shows on any part of its osseous capsule a pathological opening of the peri- or endolymphatic spaces (fistula, cholesteatoma, sequester, tumor, etc.) or continued symptoms of irritation on the part of the static labyrinth (vertigo, nystagmus, vomiting).

The study of suppurative and non-suppurative labyrinthian affections and those of the acoustic nerve has brought otology and neurology in still closer relation to each other than they were before. This cannot surprise us if we consider the construction of the labyrinth and the course of the acoustic nerve. In this connection it may be mentioned that injuries to the head and the resulting affection of the ear have generally not been recognized in their true light. The extent and the gravity of the lesions involving the organ of hearing with their immediate and remote consequences are still demanding a more careful study and consideration. The loss of function as well as the relation to the general health of the injured deserve close and painstaking observation. The writer has tried to call attention to this at present somewhat neglected field, although it is by no means unknown in literature.

The results of Hayne's operation have not been encouraging. Inasmuch as the meninges once infected are much less liable to a restitution compared with other tissues, i. e., the peritoneum, it would seem that even such a heroic interference as the Hayne's operation so distant from the point of initial infection cannot be of much assistance.

The literature of recent date calls attention to the very dangerous infections by the streptococcus mucosus capsulatus with fatal outcome. Graham speaks of the insidiousness and

burrowing power of the group of capsulated bacteria in the acute middle ear infections. Berens reported two cases with no central nervous phenomena until shortly before death. Cutler very aptly remarks that this bacillus does the greatest damage with the least symptoms.

One of the encouraging features of the progress of otology may be found in the fact that the more essential and frequent affections like acute otitis media requiring prompt incision of the drum membrane are becoming more familiar and also the recognition of an acute mastoiditis requiring surgical interference.

The prevention of deafness in its many-side aspects receives more consideration. It is scarcely necessary to repeat that as one of the preventive measures the treatment of the respiratory tract deserves still greater attention—pathological conditions of the nose and adenoids.

I may add, without further comment, that in Budapest middle ear inflammation is included in the weekly report of the health officer.

EMIL AMBERG.

#### THE PROGRESS OF OTOTOLOGY.

The practice of Otology had its birth during the infancy of medicine in the fifth century B. C. Hippocrates laid down the basic principles of the modern therapeutic treatment of acute and chronic suppurative otitis media and mentioned the surgical treatment of aural polypi. The medical Otologist flourished during the Roman Empire but passed into oblivion with the degeneration of civilization during the Dark Ages. From the beginning of the Renaissance until the last century the field of Otology did not keep pace with the general development of medicine. This may be credited to the fact that the field was not regarded as vital or, perhaps, it was less lucrative than some other. However this may have been, the physiology and pathology of the region remained unexplored and consequently the treatments were medical of the most empirical sort. Surgical procedures for deafness were suggested as early as 1654 by Rolfinck and practiced by Petit in 1674. Trephining the mastoid in suppurative cases was begun about this time and was employed periodically until about 1873 when the modern procedure was proposed. The results of the earlier surgery only brought discredit upon the specialty and strengthened the position of the therapeutic advocates. Only the adventurers attempted surgery.

Modern Otology was born in the early 19th century with the works of Itard, Toynbee and Wilde but hardly kept pace with the advances

of other lines of medical research until the works of men like Gruber, Politzer, Schwartz, Gruener, Blake, Ewald, Barany and Neumann established the physiology, pathology, diagnosis and treatment in the field and placed Otology upon a thoroughly modern scientific basis. Much of the treatment proposed by the earlier of these men was medical but was directed towards a definite etiological factor. With the establishment of definite etiological factors, the Otologist naturally became a Rhinologist and a Laryngologist. Likewise the diagnostic methods developed and the data secured during the last half dozen years are carrying him beyond the temporal bone and into the brain. Today we know that seventy-five per cent. of all brain abscesses are otitic in origin, and hence belong in the field of otology.

Pathological and physiological researches and the development and perfection of surgical methods during the past decade have made constant inroads upon the empirical medical procedures and have slowly and certainly condemned the spray and the swab except in a few isolated cases. These efforts have established Oto-laryngology upon a solid and brilliantly successful surgical basis. No more brilliant procedure crowns surgical achievements than the modern mastoid operations; no surgical interference is executed with more exact and scientific technic nor with more striking and permanent benefit to the patient than the modern submucous resection; no single surgical procedure has added more to the efficiency of the people than the modern adenoid and tonsil operation.

The modern evolution of the Oto-laryngologist from an internist to a surgeon has entirely changed his relation to both physician and patient. The internist has recognized and is meeting the necessity of the intimate diagnostic knowledge of the specialists' field and the future of the Otologist must depend upon his relation to the profession more than upon the impression that he creates with the laity.

FERRIS N. SMITH.

#### TONSILS AND ADENOIDS.

The readers of THE JOURNAL no doubt are somewhat familiar with the voluminous literature on the subject of pharyngeal and lingual lymphoid tissues—Waldeyer's Ring. The last word has not been written concerning this tissue. We see gross evidence of its hyperplasia wherever we go. We find it present in the Esquimaux in the extreme north, and the Malay in the region of the equator. The temperate climate seems to predispose one to its development. The statistics of Gradenigo and

Massie have demonstrated this. The former in the sub-Alpine climate of Turin found these growths present in one of every three children that came to his clinic, while the latter, in the more balmy air of Naples saw only five cases in fifteen years.

There are a great many cases in every community suffering from hypertrophic and diseased lymphoid tissue in this region. The introduction of medical supervision of schools has uncovered a great many cases; part of which have a small amount of lymphoid tissue in this region, but have not and do not experience any trouble; part of which have greatly hypertrophic or diseased tissue in the region in question. The public has been educated about the wide prevalence of this condition and some of the gross defects that result and the pronounced physical and mental changes that ensue subsequently to radical operative procedure. The fact that formerly these cases have not been made more conspicuous is not due to lack of diagnostic skill of the medical attendant but to the fact that he has not aggressively emphasized the due need of operative relief. I will grant even in this day of medical progress and development, there is an occasional medical man who yet believes, that hypertrophied Waldeyer's Ring is indispensable for the maintenance of normal bodily economy, though there is present a marked degree of pathological physiology, both physical and mental. This is not conservatism but ignorance in the fundamentals of medicine. The medical philosophy and scientific logic of the fair-minded conservative contributor upon injudicious destruction of normal anatomical pharyngeal lymphoid tissue must be recognized as the application of sane medical judgment. However, we must not allow this high type of medical judgment to lead us to become over conservative simply for the reason that so many tonsils and adenoids are being destroyed, therefore, surely some normal tissue is being unduly "massacred." Nor should we be greatly alarmed when we discover the presence of tonsils and adenoids, and immediately rush the patient to the operating table. Discreet, critical and discriminate survey of all the details of the case should be applied before operative procedure is advised of which some of the following should be considered:

Nasal-obstruction not due to anterior nasal pathology, accompanied by free nasal discharge or dried crusts. Night-crying and disturbed breathing while asleep. Frequently, children leap out of bed frightened not because of dreams but because of obstructed respiration. Nasal obstruction is usually responsible for high dental arch and mal-occlusion. Orthodontia will not correct or improve these deformities if this hyperplastic tissue is not com-

pletely removed. Some children complain that they cannot swallow with the mouth shut because they cannot breathe. These have narrow and shallow chests with more or less degree of the "pigeon breast."

Frequent attacks of sore throat, peritonsillar suppuration, frequent colds and persistent cervical lymphadenitis are significant.

Diseased, submerged, imbedded and adherent tonsils accompanied by palpable cervical lymph glands—operative procedure should always be courageously advised when this symptom-group is present. From these obscure conditions develop arthritis and endocarditis just as well as from a large diseased hypertrophied tonsil that can be easily seen.

Frequent attacks of earache and insidious deafness are sufficient in themselves to demand operative interference. Since enucleation of tonsils and removal of adenoids have been faithfully followed out, mastoid diseases have greatly decreased.

The operation *per se* is enucleation with capsule intact. A method should be developed to suit the individual operator. Cutting off the projecting portions of the tonsil leaves degenerative tissue to perpetuate mild sore throat and systemic absorption. The operator's responsibility is not concluded upon enucleation of the tissue in question. If mal-occlusion is present orthodontic work should be aggressively encouraged. Habit of nasal-breathing must be re-established to replace the habit of mouth-breathing or some of the good results from the throat work will be lost.

There is no phase of the practice of medicine where the skill of the attending physician is tested more than giving the prognosis of any one case. Caution and critical analysis of the case should be made before giving a prognosis as to the post-operative course of tonsils and adenoids. Should the case be a low graded moron the mental stupidity or sluggishness would fail to improve in the same degree that one of the normal mentality would. There are types of the mongolian imbecile that resemble to a marked degree the facial contour and expression of one suffering from hypertrophied tonsils and adenoids, yet throat and nasal pathology is absent.

CLARKE B. FULKERSON.

#### RADIUM AS A CURE FOR CANCER.

Recently the American Society for the Control of Cancer released for publication a warning against the exploitation of radium as a cure for cancer. This in turn has called forth a protest from workers with radium who proceed to marshal facts showing the good effects of radium in the treatment of certain types of cancer, notably carcinoma of the uterus. If

the Society's publication be carefully read, it will be seen that the article distinctly states that apparently the use of radium has resulted in the cure or at least in the benefit of certain types of cancer such as skin cancer and cancers of the mucous membranes. But it is yet to be seen whether such cures will prove permanent. In the past we have seen various substances, after being injected into malignant growth with apparently good results, lauded as cures for cancer. The cases injected did not stand the test of a five year period without recurrence, so that gradually the cancer cure ceased to be a cure. This does not mean that radium should not be employed and thoroughly tested. Anything and everything should be used which may in the slightest degree prove of benefit in inoperable cases of cancer. But one must be very conservative about advocating the use of radium for cases of cancer which experience has shown can be cured by the knife, if the latter be employed early enough in the course of the disease. There is always the danger that the person with cancer, no matter of what type or stage, will be led to try radium to escape an operation which might have resulted in a cure.

It is difficult for the laity to appreciate the attitude of the medical profession regarding the cure of any disease. Popular writers on cancer accuse surgeons of groping in the dark as regards cancer and urge them to come forward with their figures to show what surgery has been able to accomplish against this most dreaded of diseases. They say that positive statements by medical men of repute are needed to offset the positive lies of the quacks as to what they can do in curing cancer. But the medical profession is not secretive and conservative without good cause. Too often their fondest hopes regarding the cure of disease have been doomed to bitter disappointment. So they say now that they want radium tried out in cancer cases in a careful, scientific manner. If it proves a cure for cancer, good and well. Willingly will they drop their knives and turn to radium. But they are not sure and until they are convinced of the efficiency of this treatment they prefer to warn the people against being too hopeful of the value of this new remedy. There is so much that is absolutely authoritative to teach the people concerning cancer that it is a pity to waste any strength on the propagation of anything in the line of cancer treatment which has not been proved by time.

REUBEN PETERSON.

#### THE ART OF HUMAN APPROACH.

Many a man wonders why he does not get on in life; he is smart enough, he has a good



education, he has a good start in many ways, but somehow before long he drops by the wayside and he broods in his leisure hours in an endeavor to ascertain why he is not enjoying the success of his neighbor. Everything else being equal—that is professional training, education, environment and personal address—we are of the opinion that the failure to succeed is largely due to the fact that the average individual does not understand what we are pleased to term “The Art of Human Approach.”

Alone, pursuing a cloistered existence, no man is of much value in this life. No successful man lives alone or to himself—if he did he would have starved and failure in place of success would be his epitaph. Your success is dependent upon the associations and the affiliations that you make. The succeeding months and years cause us to take on the color and character of our associations. The vital thing, early in life, is to become associated with the right people.

Someone has said: “A man’s value in life largely depends upon his relations, how he gets articulated with the work about him, and a man’s success in life largely depends upon his ability to make and keep friends.” This thing seems easy for some men. We say of this man or that: Oh, he is a good mixer, he makes friends easily. We believe that a man can acquire the Art of Human Approach if he will only put himself out to do so—it is not an inherited trait. The trouble, however, that often exists is that many of us are diffident and backward; we do not get acquainted readily because we are selfish, self-centered, self-conscious and care more about ourselves than about other people.

We are inclined to want everybody to make advances and come to us; we want everybody to be introduced to us and if people do not come around and make a fuss over us we go away and say that So and So is not very friendly. Such complaints of unsociability rarely emanate from one who is sociable himself. The fellow that has a warm, kindly heart himself is rarely complaining of the unsociability of the other fellow. Wherever the sociable man goes he carries sunshine with him. The fellow that complains is the prematurely old, stiff, stand-around-on-the-edge-of-the-crowd-man, who wonders why everybody else does not come jumping over seats to get a hold of that old, dead flapper of his; who is an iceberg and wonders why people do not embrace him; who won’t put himself out to be friendly to others and make somebody else feel good; who wants everybody to come and pat him on the back and tell people how good he is. He is selfish. That is the real reason. He won’t put himself to the least inconvenience to make friends.

“Certain it is that the man who turns away from stimulus of other men’s thoughts and observations and simply imagines that his recollections of student’s lecture room supplemented with his own necessarily limited experience are sufficient, will find himself elbowed out of the way by the eager crowd of ambitious and more ardent spirits. Don’t stagnate in the back water, but come out into the stream of progress.”

Of course if you intend to be a hermit and live on a desert isle and never come in contact with your kind, it doesn’t make any difference. On the other hand if you desire to be up and with the “fore-rankers” you must cultivate the art of making friends. A certain person when asked the secret of his success in life replied: “Whatever success I have had in life I think I can explain in a single sentence—I had a friend.” The annals of history are crowded with the instances of those who have gotten on because they understood how to make and keep friends. “Many a man fails in life because he has not sense enough to rub a man the right way.”

You, who are wondering why things aren’t breaking a little better; you, who are wondering why your neighbor is forging ahead while you are remaining stationary; you, who are finding yourself on the edge of the crowd, to you we recommend the exhibition of energy sufficient to bring around you a large coterie of friends.

Competition is no longer the motto of the business world. Business men have realized that their success is dependent upon the friends they make. There exists an International Association of business men that have as their motto—“He profits most who serves best.” This is an organization that has for its sole object the bringing into intimate acquaintanceship the business men of the country—to make them friends. Our medical societies present every doctor in Michigan with this same opportunity. If you haven’t grasped this opportunity or have been half-hearted about your affiliation we urge it upon you that you at once make the effort to secure all the benefits obtainable by reason of your membership in your county society. Make the doctors of your community your friends, for by so doing a long step of progress in your career will have been accomplished. No doctor ever attained success that was not affiliated and active in his county society.

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**DON’T FAIL TO ATTEND THE NEXT  
MEETING OF YOUR COUNTY SOCIETY**

### Editorial Comments

The next—the Forty-ninth Annual Meeting—will be held in Lansing on September 11th and 12th, 1914. The Section Chairmen and Secretaries are already engaged in arranging the programs for their respective sections. The profession of Lansing, whose guests we will be, assure us of their determination to make this meeting the “best ever” in our history. Applications for program assignments should be made to the section secretaries.

This issue is devoted to the publication of the papers that were read in the section on Ophthalmology and Oto-Laryngology during the last annual meeting of our society. They in a measure bear upon subjects that are only of interest to the specialist, still we are sure that the general practitioner will find in them much information that will be of aid in his practice. You are often approached for advice regarding certain diseases that properly belong to the field of the eye, ear, nose, and throat man and in order that you may pass an intelligent as well as reliable opinion it behooves you to remain conversant with the progress that is being made in these special lines. You will secure such information by reading every article in this issue.

As announced last month the Transactions of the Clinical Society of the University of Michigan is omitted in this issue for the reason that the time has heretofore been so short between the date on which these meetings were held and the date when *THE JOURNAL* goes to press that we have barely had time to arrange the articles properly. We therefore decided to allow a month to elapse. In our next issue and regularly thereafter the Clinical Transactions will appear until the summer vacation.

Our members are requested to carefully read the minutes of the January meeting of the Council as published in this issue. In connection therewith you will also find an itemized statement of the sources and disbursements of the funds of the State Society. The detailed statement is published in order that each member may learn and know for what the funds of his society are expended.

One month of 1914 has passed. Have you posted your accounts for the month and mailed your statements? It is one of the absurdities of medical traditions to think that you can be an able and progressive physician and ignore the business aspects of your work—unless you were lucky in having a fortune bequeathed to

you. The financial side of the business of practicing medicine should be studied as well as the professional and scientific side of our work. Are you doing it?

Did you appreciate the January *JOURNAL*? We were able to send you that number with those illustrations and grade of paper by reason of the patronage we have received from our advertisers during the past year. We will be able to send you a similar number each month during 1914 if you will but make it a point to patronize these advertisers who are making it possible for us to send you a better *JOURNAL* each year. Confer your orders upon them and tell them why you are doing so and in addition to receiving courteous and prompt service you will have done your part towards bringing to your desk a better *JOURNAL*. May we depend upon you for this co-operation?

Do you endorse or condemn the division of fees in medical and surgical consultations and work? If you are opposed to this practice will you not place yourself upon public record as being so opposed. Start the movement in your county society; establish a roll of honor. The *JOURNAL* is open for you to declare your position. In response to the comments on this subject in our last issue we have received the following:

“In compliance with your suggestion as regards ‘fee-splitting,’ I will be glad to be enrolled as opposed to the practice in any form.

H. L. Charles, M.D., Paw Paw, Mich.

Are there any others?

The following is a list of the Michigan Fellows of the American College of Surgeons:

#### Detroit—

|                     |                      |
|---------------------|----------------------|
| Emil Amberg         | Howard W. Longyear   |
| Max Ballin          | Walter P. Manton     |
| John N. Bell        | Theodore A. McGraw   |
| Clark D. Brooks     | Wm. F. Metcalf       |
| J. Henry Carstens   | William H. Morley    |
| Ray Connor          | Walter R. Parker     |
| Ernest K. Cullen    | Rolland Parmeter     |
| Robert W. Gillman   | Frederick W. Robbins |
| Herbert W. Hewitt   | B. R. Schenck        |
| Louis J. Hirschman  | Burt R. Shurley      |
| Frederick C. Kidner | Harry N. Torrey      |
| Daniel Laferte      | Frank B. Walker      |

#### Grand Rapids—

|                      |                        |
|----------------------|------------------------|
| Robert J. Hutchinson | D. Emmett Welsh        |
| R. R. Smith          | Frederick C. Warnshuis |

#### Kalamazoo—

Ralph E. Balch

#### Ann Arbor—

|                 |                     |
|-----------------|---------------------|
| Roy B. Canfield | C. B. G. deNancrede |
| C. G. Darling   | Reuben Peterson     |

#### Big Rapids—

W. T. Dodge

#### Calumet—

A. I. Lawbaugh

Lansing—  
 Flint—  
 Saginaw—  
 Petoskey—

Marshall L. Cushman  
 J. G. R. Manwaring  
 C. H. Sample  
 Frank C. Witter

All of these Fellows have, by reason of their being admitted to the College of Surgeons, pledged themselves to not practice the division of fees.

President G. L. Kiefer announces the appointment of Dr. Arthur M. Hume of Owosso as member of the Medical Legislative Committee of the American Medical Association, and Dr. Burt R. Shurly, of Detroit, as delegate from Michigan to the annual meeting of the Association of American Medical Colleges to be held in Chicago during the latter part of February.

We have always had a wholesome respect for an automobile engine—so much so that we have been constantly watchful when cranking to prevent “back-fire.” “It will get you sooner or later,” has been handed to us on several occasions, and in place of boasting of our ability to ward off an accident we exercised greater precaution. The “Jinx” was, however, on our trail and eventually landed us.

The facts in brief are: A cold day; motor running idle for some fifteen minutes; we threw in the clutch and “stalled” the engine; the spark was retarded to its full limit; we grasped the crank to “turn her over” when—Presto—myriads of stars appeared in the heavens and a sharp, lancinating pain was felt in our right wrist; a hurried “spurt” was made for the elevator to carry us to our office; recovering from our “nausea” and outbreak of cold sweat and the office girls ignoring the invectives that charged the air, they summoned a surgical friend. Upon his arrival rapid action followed—the X-ray revealed a fractured radius with displaced fragments. A ride to the hospital, ether, awakening in bed with a throbbing wrist encased in splints and then thirty-six hours of constant “ache.”

We are now taking a four or five weeks' enforced vacation. As a warning to others—Be careful how you crank a heated motor. A red-hot piece of carbon will cause pre-ignition the same as will an advanced spark. Self-starters appeal to us very strongly. A high-powered car has a high-powered “kick”—we know.

It happened on the 13th.

## *The Minutes and Transactions of the Annual Meeting of the Council*

The Annual Meeting of the Council of the Michigan State Medical Society was held in the Wayne County Medical Society Club Building on January 20th, 1914, with the Chairman, W. T. Dodge, presiding and the following Councilors and visitors present:

1st District—A. P. Biddle (Absent by reason of illness.)

2nd District—

3rd District—

4th District—A. H. Rockwell.

5th District—W. J. DuBois.

6th District—Arthur M. Hume.

7th District—W. J. Kay.

8th District—A. L. Seeley.

9th District—B. H. McMullen.

10th District—C. H. Baker.

11th District—W. T. Dodge.

12th District—R. S. Buckland.

13th District—F. C. Witter.

14th District—C. T. Southworth.

President—Guy L. Kiefer,

Treasurer—D. Emmet Welsh.

Secretary-Editor—F. C. Warnshuis.

Chairman Medico-Legal Com.—F. B. Tibbals.

The minutes of the last session of the Council that was held in Flint Sept. 5th, 1913, were approved as read.

The Secretary-Editor submitted his annual report for the year 1913, as follows:

### ANNUAL REPORT OF THE SECRETARY-EDITOR

For the Year 1913.

Rendered to the Council, January 20th, 1914.

To the Council and Members of the Michigan State Medical Society:

Gentlemen:

Fully appreciative of the honor bestowed by being so privileged, I herewith respectfully submit to you the annual report of your Secretary-Editor for the period of February 1, 1913 to December 31, 1913, inclusive.

I will endeavor to cover this period of eleven months by the outlining of the direction towards which our efforts have been exerted with but a few recommendations as to our future activities, and thus enable you and our members, to determine individually the verdict that is to be pronounced upon our endeavors and the year's work.

#### ENTRANCE INTO OFFICE.

About February 1st, 1913, I received the records and property of the Society by express and freight. The absence of a definite statement of the details of the records of office occasioned the request for an audit of the books and records in order that I might have a certified statement of the balances and condition of each account. The report of this audit was submitted to you at your Annual Meeting in Flint on September 4th, 1913. The following is a copy of the auditor's certified report for the year closing December 31, 1913. The original has been filed with the Chairman of your Finance Committee.



## AUDITOR'S FINANCIAL REPORT.

Grand Rapids, Mich., Jan. 5, 1914.

To the Council of the Michigan State Medical  
Society: c/o F. C. Warnshuis, Secretary,  
91 Monroe Ave., Grand Rapids, Michigan.

Gentlemen:—

I have just completed the examination of the  
books and accounts of the Michigan State Medical  
Society for the year ended December 31, 1913, and  
am pleased to submit the following exhibits:

## EXHIBIT B.

## Savings Account.

Certificates of Deposit in hands of Treas. \$2,325.05

## EXHIBIT C.

## Certificates of Deposit.

No. 116, Big Rapids Bank, 4% interest ....\$1,000.00  
Grand Rapids Savings Bank, on deposit  
with Post Master ..... 25.00  
Total ..... \$1,025.00

## EXHIBIT A.

## Trial Balance December 31st, 1913.

|                                   |                    |                         |             |
|-----------------------------------|--------------------|-------------------------|-------------|
| Bond (a) .....                    | \$ 2,000.00        | Present worth .....     | \$ 6,031.67 |
| Savings (b) .....                 | 2,325.05           | Dues .....              | 2,194.75    |
| Act. Rec. advertising .....       | 512.06             | Journal Subs. ....      | 2,210.65    |
| Act. Rec. reprints .....          | 109.25             | Defense .....           | 182.00      |
| G. R. Savings Bank .....          | 1,000.57           | Advertising Sales ..... | 3,045.08    |
| Certificates of Deposit (c) ..... | 1,025.00           | Reprint Sales .....     | 310.75      |
| Journal Expense (d) .....         | 4,158.15           | Int. Recd. ....         | 146.23      |
| Secretary Expense (e) .....       | 273.69             | Over and short .....    | .20         |
| State Society Expense (f) .....   | 1,412.97           |                         |             |
| Advertising Expense (g) .....     | 167.82             |                         | \$14,121.33 |
| Reprint Expense .....             | 416.50             |                         |             |
| Council Expense (h) .....         | 285.28             |                         |             |
| Petty Cash .....                  | 17.00              |                         |             |
| General Expense (i) .....         | 180.28             |                         |             |
| Annual Meeting (j) .....          | 237.71             |                         |             |
|                                   | <u>\$14,121.33</u> |                         |             |

## EXHIBIT B.

## Statement Showing Loss and Gain for Year Ended Dec. 31, 1913.

| Expenses              | Losses            | Receipts                         | Gains      |
|-----------------------|-------------------|----------------------------------|------------|
| Journal .....         | \$4,158.15        | Membership Dues .....            | \$2,194.75 |
| Society .....         | 1,412.97          | Journal Subs. ....               | 2,210.65   |
| Reprints .....        | 416.50            | Advertising Sales .....          | 3,045.08   |
| Annual Meeting .....  | 237.71            | Reprint Sales .....              | 310.75     |
| Council .....         | 285.28            | Interest Received .....          | 146.23     |
| Secretary .....       | 273.69            | Over and Short acct. ....        | .20        |
| Advertising .....     | 167.82            |                                  |            |
| General Expense ..... | 180.28            |                                  | \$7,907.66 |
| Petty Cash .....      | 17.00             |                                  | 7,149.40   |
|                       | <u>\$7,149.40</u> | Net gain for the year 1913 ..... | \$ 758.26  |

## EXHIBIT C.

## Balance Sheet Showing Condition January 1st, 1914.

|   |                   |   |            |
|---|-------------------|---|------------|
| Bonds .....                                     | \$2,000.00        | Due Defense Fund for the year 1914 .... | \$ 182.00  |
| Savings acct. (In hands of Treas.) .....        | 2,325.05          | P. W. 1/1/13 .....                      | \$6,031.67 |
| Certificates of Dep. (In hands of Treas.) ..... | 1,025.00          | Gain for the year 1913 .....            | 758.26     |
| G. R. Savings Bank .....                        | 1,000.57          |   | \$6,789.93 |
| Act. Rec. Advertising .....                     | 512.06            |   |            |
| Act. Rec. Reprints .....                        | 109.25            |   | \$6,971.93 |
|   | <u>\$6,971.93</u> |   |            |

The bank account with the G. R. Savings Bank  
was reconciled as at December 31, 1913, and found  
correct.

The bonds, savings account and certificates of  
deposit are in the hands of the Treasurer, D.  
Emmet Welsh.

(Signed) WALTER H. SHULTUS,  
Public Accountant.

## EXHIBIT A.

## Bond Account

Edwards & Chamberlain Hardware Co.,  
Kalamazoo, Mich. 1st Mortgage  
bonds, Nos. 9, 10, 11, 12, at \$500.00 ..\$2,000.00

## EXHIBIT D.

## Journal Expense Account.

|  |         |
|--|---------|
| February—  |         |
| 11 Stanton Ptg. Co., postal cards .....                      | \$ 3.00 |
| 11 Miss Taylor, mailing list for P. O. ..                    | 6.60    |
| 11 Postage .....   | 4.00    |
| 11 F. C. W. Editor's Expense to Chicago                      | 34.55   |
| 11 Miss Hill, stenographer .....                             | 20.00   |
| 11 F. C. W. Editor's salary one-half mo.                     | 23.33   |
| 21 A. M. A. Printing Feb. Journal ....                       | 200.55  |
| 21 U. S. Clipping Bureau .....                               | 3.50    |
| 21 Schuil Ptg. Co., Adv. contracts .....                     | 10.50   |
| 21 Wilfrid Haughey, postage and mail-<br>ing Jan. Jour. .... | 5.86    |

|   |        |   |            |
|---|--------|---|------------|
| 28 Wilfrid Haughey, mailing and cartage Feb. Jour. ....       | 6.00   | 13 P. M. Sept. Journal .....                          | 8.97       |
| 28 Miss Hill, stenographer .....                              | 10.00  | 13 Addressograph Co., revising mailing list .....     | .67        |
| 28 Addressograph Co., repair of addressograph .....           | 28.82  | 26 U. S. Press Clipping Bureau .....                  | 3.50       |
| 28 Schuil Ptg. Co., printing statements ..                    | 4.00   | 26 A. M. A. Printing Sept. Jour. ....                 | 241.05     |
| 28 F. C. W. Editor's salary Feb. ....                         | 41.67  | 26 F. C. W. Salary Aug. and Sept. ....                | 83.33      |
| March—  |        | October—  |            |
| 12 W. Haughey, salary editor January ..                       | 25.00  | 10 P. M. October Journal .....                        | 10.24      |
| 12 Postmaster, postage March Jour. ....                       | 6.90   | 10 Tradesman Co., printing Oct. Jour. ..              | 355.71     |
| 12 F. C. W., expense Detroit .....                            | 15.53  | 31 Miss Taylor, stenographer .....                    | 20.00      |
| 20 Miss Hill, stenographer .....                              | 20.00  | 31 F. C. W., salary for October .....                 | 41.83      |
| 20 U. S. Press Clipping Bureau .....                          | 3.50   | 31 F. C. W., expense to Chicago .....                 | 14.75      |
| 20 Printers Ink Co., subscription .....                       | 2.00   | 31 West's Drug Store, rent .....                      | 7.50       |
| 20 A. M. A. Printing Jan. and March Journals .....            | 417.35 | 31 Miss Taylor, stenographer .....                    | 20.00      |
| 27 Addressograph Co., revising mail. list                     | 3.45   | November—   |            |
| 27 P. M., Battle Creek. Balance unpaid postage for 1912 ..... | 9.44   | 13 U. S. Clipping Bureau .....                        | 3.50       |
| 27 F. C. W. Editor salary March .....                         | 41.67  | 13 Western Union Teleg. Co. ....                      | .70        |
| April—  |        | 13 Columbia Trans. Co., Freight and cartage .....     | 23.66      |
| 5 A. M. A. April Journal .....                                | 216.60 | 13 P. M., Nov. Journal .....                          | 11.27      |
| 12 P. M. Second class postage .....                           | 8.64   | 13 Tradesman Co., November Journal ..                 | 318.60     |
| 12 Postage, first class and correspondence                    | 10.00  | 13 Miss Taylor, stenographer .....                    | 20.00      |
| 12 Miss Hill, stenographer .....                              | 10.00  | 13 F. C. W., salary November .....                    | 41.66      |
| 28 West's Drug Store, postage .....                           | 10.00  | December—   |            |
| 28 F. C. W. Editor salary April .....                         | 41.67  | 24 Tradesman Co., December Journal ..                 | 318.16     |
| 28 Miss Hill, stenographer .....                              | 10.00  | 24 Addressograph Co. ....                             | .90        |
| 28 U. S. Press Clipping Bureau .....                          | 3.50   | 24 P. M. December Journal .....                       | 10.78      |
| 28 Addressograph Co. Change of mailing list .....             | .58    | 24 U. S. Press Clipping Bureau, Bal. act., 1913 ..... | 10.50      |
| May—  |        | 24 West's Drug Store, December rent ..                | 15.00      |
| 15 U. S. Press Clipping Bureau .....                          | 3.50   | 24 Miss Taylor, stenographer, Jan. 1st ..             | 17.50      |
| 15 Ellis Pub. Co. Binding 1912 Journals                       | 18.00  | 24 F. C. W., December salary .....                    | 41.66      |
| 15 A. M. A. Printing May Journal .....                        | 243.62 | 24 F. C. W., postage .....                            | 3.75       |
| 15 Miss Hill, stenographer .....                              | 10.00  | Total .....   | \$4,158.15 |
| 21 Western Union Telegraph Co. ....                           | 1.96   | EXHIBIT E.  |            |
| 21 P. M. May Journals .....                                   | 8.86   | Secretary's Expense.                                  |            |
| 21 West's Drug Store, postage .....                           | 5.00   | Feb. 11—F. C. W., Secy. Expense Chicago \$            | 13.80      |
| June—   |        | Mar. 12—W. Haughey, exp. acct. Jan. ....              | 69.87      |
| 5 A. M. A. June Journal .....                                 | 206.58 | Mar. 12—F. C. W., Genesee County trip ..              | 9.38       |
| 5 Miss Hill, stenographer .....                               | 10.00  | Apr. 28—F. C. W., Exp. Berrien and Me- costa Co. .... | 16.28      |
| 5 F. C. W., May salary .....                                  | 41.67  | June 5—F. C. W., A. M. A. meeting .....               | 72.60      |
| 5 P. M., June Journal .....                                   | 8.11   | July 14—F. C. W., Lapeer meeting .....                | 7.48       |
| 13 Miss Hill, stenographer .....                              | 10.00  | Aug. 2—F. C. W., Chicago expense .....                | 14.50      |
| 30 Miss Hill, stenographer .....                              | 10.00  | Aug. 13—F. C. W., Upper Pen. meeting ..               | 47.17      |
| 30 F. C. W. Editor salary June .....                          | 41.67  | Sept. 26—Secretary's office expenses ....             | 8.95       |
| July—   |        | Oct. 31—F. C. W., Ottawa and Montcalm meetings .....  | 4.86       |
| 14 U. S. Press Clipping Bureau .....                          | 3.50   | Dec. 24—F. C. W., Tri-County meeting ..               | 8.80       |
| 14 Columbia Transfer Co. Freight and cartage .....            | 17.04  | Total .....   | \$ 273.69  |
| 14 A. M. A. Printing July Journal .....                       | 209.12 | EXHIBIT F.  |            |
| 14 P. M. Postage July Journal .....                           | 6.83   | State Society Expense.                                |            |
| 14 Addressograph Co., revising mailing list .....             | 1.72   | February—   |            |
| 14 Miss Hill, stenographer .....                              | 10.00  | 11 F. C. W., Secy. Supplies .....                     | .73        |
| August—   |        | 11 Miss Hill, stenographer .....                      | 20.00      |
| 2 F. C. W. Editor salary July .....                           | 41.66  | 11 J. S. Crosby Co., Secy. and Treas. Bonds .....     | 15.00      |
| 2 Miss Hill, stenographer .....                               | 10.00  | 11 Fox Typewriter Co. ....                            | 1.00       |
| 2 West's Drug Store, postage .....                            | 6.00   | 11 F. C. W., postage .....                            | 4.00       |
| 2 A. M. A. Printing Aug. Journal ....                         | 235.48 | 11 F. C. W., salary .....                             | 23.33      |
| 13 P. M. Aug. Journal .....                                   | 11.11  | 12 Tisch-Hine Co., supplies .....                     | 44.66      |
| 13 Mich. Telephone Co., long dist. ....                       | 11.30  | 12 West's Drug Store, postage .....                   | 5.00       |
| 16 Miss Hill, stenographer .....                              | 10.00  | 21 Schuil Ptg. Co., membership cards ..               | 14.75      |
| 16 West's Drug Store, postage .....                           | 5.00   | 28 Miss Hill, stenographer .....                      | 10.00      |
| 13 Addressograph Co., addresses .....                         | 1.02   | 28 Tisch-Hine Co., stationery .....                   | 13.20      |
| September—  |        | 28 F. C. W., February salary .....                    | 41.67      |
| 1 Miss Hill, stenographer .....                               | 10.00  | 28 Fox Typewriter Co., exchange typewriters .....     | 25.00      |
| 11 Miss Taylor, stenographer .....                            | 10.00  |   |            |
| 11 West's Drug Store, rent 2/1/13 to 9/1/13 .....             | 52.50  |   |            |
| 13 U. S. Press Clipping Bureau .....                          | 3.50   |   |            |

## March—

|   |        |
|---|--------|
| 12 W. Haughey, January salary .....             | 25.00  |
| 12 West's Drug Store, postage .....             | 20.00  |
| 20 Miss Hill, stenographer .....                | 20.00  |
| 20 J. S. Crosby Co., Ins. on office equip. .... | 15.00  |
| 27 Tisch-Hine Co., membership ledgers ..        | 157.44 |
| 31 G. R. Typewriting Co., form letters ..       | 1.25   |
| 31 F. C. W., March salary .....                 | 41.67  |

## April—

|   |       |
|---|-------|
| 12 Miss Hill, stenographer .....                        | 10.00 |
| 12 Petty cash account .....                             | 5.00  |
| 28 F. C. W., salary April .....                         | 41.67 |
| 28 Miss Hill, stenographer .....                        | 10.00 |
| 28 Mich. State Telephone Co., long dist. ....           | 1.35  |
| 28 Columbia Transfer Co., freight ....                  | 13.19 |
| 28 Tisch-Hine Co., set of books .....                   | 21.56 |
| 28 L. R. Taylor, typewritten member-<br>ship list ..... | 6.00  |

## May—

|   |       |
|---|-------|
| 15 Miss Hill, stenographer .....        | 10.00 |
| 21 Mich. Telephone Co., long dist. .... | 4.15  |
| 21 Postal Teleg. Co. ....               | 3.19  |
| 21 West's Drug Store, postage .....     | 5.00  |
| 23 A. M. Hume, legislative com. exp. .. | 13.27 |

## June—

|                                     |       |
|-------------------------------------|-------|
| 5 Miss Hill, stenographer .....     | 10.00 |
| 5 F. C. W., May salary .....        | 41.67 |
| 5 Tisch-Hine Co., supplies .....    | 2.10  |
| 5 West's Drug Store, postage .....  | 5.00  |
| 16 Miss Hill, stenographer .....    | 10.00 |
| 30 Miss Hill, stenographer .....    | 10.00 |
| 30 West's Drug Store, postage ..... | 5.00  |
| 30 F. C. W., salary June .....      | 41.67 |

## July—

|                                       |       |
|---------------------------------------|-------|
| 14 Powers & Tyson, postal cards ..... | 3.90  |
| 14 Tisch-Hine Co., supplies .....     | 9.00  |
| 14 West's Drug Store, supplies .....  | 4.50  |
| 15 Miss Hill, stenographer .....      | 10.00 |
| 15 West's Drug Store, postage .....   | 10.00 |

## August—

|                                    |       |
|------------------------------------|-------|
| 2 F. C. W., July salary .....      | 41.67 |
| 2 Miss Hill, stenographer .....    | 10.00 |
| 2 West's Drug Store, postage ..... | 6.00  |
| 13 Tisch-Hine Co., supplies .....  | 1.25  |
| 16 Miss Hill, stenographer .....   | 10.00 |

## September—

|  |       |
|--|-------|
| 1 Miss Hill, stenographer .....            | 10.00 |
| 11 Miss Taylor, stenographer .....         | 10.00 |
| 11 West's Drug Store, rent .....           | 52.50 |
| 26 Dr. Rutherford, public health com. .... | 13.00 |
| 26 F. C. W. Aug. and Sept. salary .....    | 83.33 |

## October—

|  |       |
|--|-------|
| 7 West's Drug Store, postage .....     | 3.81  |
| 10 West's Drug Store, rent, Aug. ....  | 15.00 |
| 10 Tisch-Hine Co., supplies 1914 ..... | 43.35 |
| 10 Miss Taylor stenographer .....      | 20.00 |
| 31 Miss Taylor, stenographer .....     | 20.00 |
| 31 F. C. W., salary October .....      | 41.83 |
| 31 West's Drug Store, postage .....    | 10.00 |
| 31 West's Drug Store, rent .....       | 7.50  |

## November—

|                                     |       |
|-------------------------------------|-------|
| 13 Schuil Ptg. Co., envelopes ..... | 4.25  |
| 25 Miss Taylor, stenographer .....  | 20.00 |
| 25 West's Drug Store, postage ..... | 10.00 |
| 25 F. C. W., salary .....           | 41.67 |

## December—

|  |       |
|--|-------|
| 24 Tradesman Co., envelopes .....            | 12.95 |
| 24 Postal Teleg. Co. ....                    | 1.35  |
| 24 Stationery, section oph., oto., laryn. .. | 5.50  |
| 24 Tisch-Hine Co., 1914 stationery ....      | 52.02 |
| 24 Miss Taylor, stenographer .....           | 17.50 |
| 24 F. C. W., December salary .....           | 41.67 |

Total ..... \$1,412.97

## EXHIBIT G.

## Advertising Expense.

|                                       |          |
|---------------------------------------|----------|
| March 5—W. Haughey, commissions ..... | \$ 30.05 |
| March 25—Robt. Currier, Chicago ..... | 6.86     |
| May 12—Robt. Currier, Chicago .....   | 5.80     |
| May 23—W. Haughey .....               | 77.27    |
| Sept. 1—D'Arcy Co., St. Louis .....   | 12.49    |
| Nov. 5—W. Haughey, bal. commission .. | 35.35    |

Total ..... \$ 167.82

## EXHIBIT H.

## Council Expense Account.

|   |          |
|---|----------|
| Feb. 11—W. T. Dodge, expense .....                      | \$ 17.65 |
| Feb. 11—C. H. Baker, expense .....                      | 19.11    |
| March 1—W. Haughey expense, Jan., 1912<br>Meeting ..... | 42.12    |
| March 1—W. Haughey, Secy. Council ....                  | 25.00    |
| March 1—Anna Haughey, stenographer<br>Council .....     | 25.00    |
| May 23—A. M. Hume, Councilor expense ..                 | 7.07     |
| Sept. 10—Miss Taylor, stenographer Coun.                | 25.00    |
| Sept. 10—County Secretaries' dinner .....               | 37.50    |
| Sept. 13—Auditor .....                                  | 68.50    |
| Sept. 26—Eifert File Case .....                         | 7.84     |
| Oct. 10—A. H. Rockwell, expense .....                   | 10.49    |

Total ..... \$ 285.28

## EXHIBIT I.

## General Expense.

|  |        |
|--|--------|
| Feb. 1—Columbia Transfer Co., cartage ..\$                   | 3.65   |
| Feb. 1—St. Joseph Co., bank exchange ....                    | .10    |
| Feb. 11—Expense Ex-treas. Stone .....                        | 2.94   |
| Feb. 11—F. C. W. express and freight,<br>trans. office ..... | 33.99  |
| Feb. 11—F. C. W., petty cash .....                           | 5.00   |
| Feb. 20—F. C. W. express and freight,<br>trans. office ..... | 9.60   |
| Feb. 21—F. C. W., petty cash .....                           | 5.00   |
| Sept. 26—W. Haughey, office rent 1912 ..                     | 120.00 |

Total ..... \$ 180.28

## EXHIBIT J.

## Annual Meeting Expense.

|   |         |
|---|---------|
| Aug. 2—Schuil Printing Co., registration<br>blanks .....                    | \$ 3.75 |
| Aug. 13—H. B. Morse, section Secy. exp. ....                                | 5.00    |
| Aug. 13—Lawrence Printing Co., Am-<br>berg's Committee .....                | 4.25    |
| Sept. 11—F. C. W., exp. annual meeting ..                                   | 26.36   |
| Sept. 11—Dresden Hotel, invited guests'<br>hotel bill .....                 | 38.45   |
| Sept. 11—Grand Rapids Typewriting Co.,<br>membership list Reg. Bureau ..... | 5.50    |
| Oct. 10—Harry Demorest, stenographer,<br>Flint .....                        | 122.50  |

Total ..... \$ 237.71

## EXHIBIT K.

## Interest Received.

|  |       |
|--|-------|
| June 30—Chamberlain Hdw. Co., bonds ..\$               | 50.00 |
| July 31—Battle Creek & Kalamazoo Sav.<br>Banks .....   | 46.23 |
| Aug. 21—Certificate of Deposit, Peoples<br>Bank .....  | 30.00 |
| Sept.—Certificate of Deposit, Big Rapids<br>Bank ..... | 20.00 |

Total ..... \$ 146.23

Note.—Interest on funds in hands of the Treas-  
urer and on bonds for last half of 1913 not re-  
ceived at the time of audit.



## EXHIBIT L.

## Explanation of Present Worth, at the Commencement of the Year.

|                                     |                   |
|-------------------------------------|-------------------|
| Bond acct. ....                     | \$2,000.00        |
| Savings Acct., Kalamazoo Bank ..... | 1,772.77          |
| Savings Acct., Battle Creek .....   | 552.28            |
| Checking Acct., Grand Rapids .....  | 1,292.76          |
| Accts. Receivable .....             | 364.36            |
| Accts. Receivable Reprints .....    | 49.50             |
| <b>Total .....</b>                  | <b>\$6,031.67</b> |

The above reveals in cold figures the condition of our finances and the source and disbursements of our funds during the past year. A study of these figures lead us to the following deductions: Our net profit for the year is \$758.26. Our present worth on December 31, 1912 was, as per the report rendered to you, \$5,427.46. Our present worth on December 31, 1913 is \$6,789.93. This in reality then gives us a profit for the year of \$1,362.47 in place of the reported profit of \$758.26 as contained in the auditor's report. The explanation of this apparent discrepancy is as follows: When we opened our new set of books during February, the total resources turned over amounted to \$6,031.66, containing as it did receipts from bills receivable and interest not incorporated in the report rendered on December 31, 1912. We consequently entered this total amount as an exhibit of the present worth of the Society at the time our new books were opened some five weeks after the commencement of this fiscal year, and have based our profit and loss computations on these figures. Our profit for the year then is, as stated, \$1,362.47 with all bills paid, and the Society's net worth on Dec. 31, 1913 was \$6,789.93. This does not include the interest on our investments for the last six months of the year, and which, because they were not collectable until January 1st, 1914, do not appear in our statement.

It is also but proper that we make mention of the extraordinary expenses incurred during the year by reason of the installing of a complete new system of records and accounting. We believe that

this has been a profitable investment for now our records are beyond criticism and are in such shape that every penny of receipts and disbursements are accurately accounted for and may be balanced in a very few moments. The expense of transferring the property of the Society from Battle Creek to Grand Rapids is revealed in the exhibit given below and is properly classified as an extraordinary expense, as are also the unpaid bills of 1912, which were deducted from the current receipts of this year in the final accounting.

## Extraordinary Expense Exhibit.

|  |                 |
|--|-----------------|
| Membership Record Ledgers .....                    | \$157.44        |
| Accounting Books and Supplies .....                | 21.56           |
| Services of Auditor .....                          | 68.50           |
| Freight and Express .....                          | 56.78           |
| Office rent, W. Haughey, 1912 .....                | 120.00          |
| Adv. Commissions, W. Haughey, 1912                 |                 |
| accts. ....  | 107.32          |
| Due Postmaster Battle Creek, 1912 .....            | 9.44            |
| Bill for binding 1912 Journals, Battle Creek ..... | 12.00           |
| W. A. Stone, Treasurer Expense .....               | 2.94            |
| Mailing List for Post Master, Grand Rapids .....   | 6.00            |
| <b>Total .....</b>                                 | <b>\$561.98</b> |

## MEDICAL DEFENSE COLLECTIONS.

A total of \$2,013.25 Medical Defense League's dues have been collected and turned over to the Treasurer. A special form of remittance blank was designed, and the members' names, residence and date of payment, as well as their County Society affiliation, was used in reporting the membership to the Chairman of the Defense League Committee. At the end of the year these blanks may be bound and thus a permanent rostra secured. Our remittances have been forwarded on the first of each month.

For your further enlightenment I append herewith the following comparative statements for the past nine years:

## EXHIBIT—Comparative Statement Last Few Years.

| Receipts       |                 |                 |               |               |               |                 |
|----------------|-----------------|-----------------|---------------|---------------|---------------|-----------------|
|                | Dues            | Adv.            | Misc.         | Reprints      | Interest      | Total           |
| 1904 .....     | \$3,283.50      | \$2,025.93      | \$36.18       |               |               | \$5,344.60      |
| 1905 .....     | 3,604.52        | 2,005.30        | 16.32         |               |               | 5,626.14        |
| 1906 .....     | 3,290.29        | 2,297.78        | 25.81         |               |               | 5,613.88        |
| 1907 .....     | 3,885.75        | 2,158.92        | 26.55         |               |               | 6,071.22        |
| 1908 .....     | 4,033.50        | 1,786.53        | 16.00         |               | \$ 27.68      | 5,863.71        |
| 1909 .....     | 4,034.18        | 2,073.71        | 16.94         |               | 48.61         | 6,174.44        |
| 1910 .....     | 3,683.30        | 2,016.97        | 43.76         |               | 86.69         | 5,830.66        |
| 1911 .....     | 4,269.65        | 2,122.59        | 18.38         | \$156.00      | 201.66        | 6,768.28        |
| 1912 .....     | 4,108.00        | 1,851.92        | 65.85         | 184.25        | 190.35        | 6,400.37        |
| 1913 .....     | <b>4,208.00</b> | <b>3,045.08</b> | <b>00.00</b>  | <b>310.75</b> | <b>146.23</b> | <b>7,907.66</b> |
| Disbursements. |                 |                 |               |               |               |                 |
|                | Journal         | State Soc.      |               | Reprints      | Profit        | Total           |
| 1904 .....     |                 |                 |               |               | \$119.69      | \$5,344.60      |
| 1905 .....     | \$4,265.26      | \$ 772.42       |               |               | 588.46        | 5,626.14        |
| 1906 .....     | 4,092.94        | 1,499.32        |               |               | 21.62         | 5,613.88        |
| 1907 .....     | 4,193.06        | 924.71          |               |               | 853.45        | 2,071.22        |
| 1908 .....     | 4,226.98        | 941.77          |               |               | 694.96        | 5,863.71        |
| 1909 .....     | 4,263.45        | 739.62          |               |               | 1,171.37      | 6,174.44        |
| 1910 .....     | 4,182.41        | 1,686.51        |               |               | (loss) 38.26  | 5,830.66        |
| 1911 .....     | 4,219.65        | 1,335.93        | \$350.81      | \$186.22      | 675.67        | 6,768.28        |
| 1912 .....     | 3,821.90        | 1,249.74        | 423.99        |               | 904.74        | 6,400.37        |
| 1913 .....     | <b>4,325.97</b> | <b>2,406.93</b> | <b>416.50</b> |               | <b>758.26</b> | <b>7,907.66</b> |

## THE JOURNAL

| Years               | No. Pages | Per Cent Adv. | Total Cost. | Cost Per Page. | Adv. Received | Cost Per Member | No. Mem. |
|---------------------|-----------|---------------|-------------|----------------|---------------|-----------------|----------|
| 1902 .....          | 248       | 21            |             |                |               |                 |          |
| 1903 .....          | 826       | 23            |             |                |               |                 | 1,653    |
| 1904 .....          | 799       | 28            |             |                | \$2,025.92    |                 | 1,777    |
| 1905 .....          | 870       | 28            | \$4,265.26  | \$4.89         | 2,005.30      | \$1.27          | 1,790    |
| (Change of Editor.) |           |               |             |                |               |                 |          |
| 1906 .....          | 942       | 28            | \$4,096.94  | \$4.34         | \$2,297.78    | \$ .97          | 1,873    |
| 1907 .....          | 904       | 28            | 4,193.06    | 4.64           | 2,158.92      | 1.07            | 1,892    |
| 1908 .....          | 857       | 24            | 4,226.98    | 4.93           | 1,786.53      | 1.29            | 1,883    |
| 1909 .....          | 836       | 25            | 4,263.45    | 5.10           | 2,073.71      | 1.21            | 1,962    |
| (Change of Editor.) |           |               |             |                |               |                 |          |
| 1910 .....          | 894       | 21            | \$4,182.41  | \$4.67         | \$2,016.97    | \$1.00          | 1,979    |
| 1911 .....          | 928       | 23            | 4,219.65    | 4.55           | 2,122.59      | .97             | 2,158    |
| 1912 .....          | 1,042     | 17            | 3,821.90    | 3.66           | 1,851.92      | .87             | 2,168    |
| (Change of Editor.) |           |               |             |                |               |                 |          |
| 1913 .....          | 1,190     | 23            | 4,325.97    | 3.63           | 3,045.08      | .58             | 2,205    |

I would suggest that the funds now invested in certificates of deposit be re-invested in mortgages or bonds and thus become greater revenue producers by reason of increased interest returns. The funds on hand are sufficient for our banking requirements.

In closing these comments upon our finances I desire to draw your attention to the necessity of a fire-proof cabinet in the office of your Secretary. The records that we now possess represent a considerable investment in money and labor. Their destruction by fire would entail their compilation anew at a considerable financial expense and even then much valuable data would be irretrievably lost. Their permanency may be assured by the purchase of a fire-proof steel cabinet at an expenditure of about \$100.00. Your instruction regarding the safeguarding of our records is solicited.

## MEMBERSHIP.

The membership enrollment on Dec. 31st, 1913 was 2,205, and is distributed among sixty County Societies in the following exhibition of the enrollment of each component organization.

|                      |    |                    |     |
|----------------------|----|--------------------|-----|
| Alpena .....         | 18 | Ionia .....        | 20  |
| Antrim .....         | 3  | Isabella .....     |     |
| Barry .....          | 6  | Clare .....        | 13  |
| Bay .....            |    | Jackson .....      | 45  |
| Arenac .....         |    | Kalamazoo Acad. .. |     |
| Iosco .....          | 49 | Kalamazoo .....    |     |
| Benzie .....         | 5  | Van Buren .....    |     |
| Berrien .....        | 25 | Allegan .....      | 136 |
| Branch .....         | 13 | Kent .....         | 134 |
| Calhoun .....        | 69 | Lapeer .....       | 24  |
| Cass .....           | 12 | Lenawee .....      | 36  |
| Charlevoix .....     | 3  | Livingston .....   | 14  |
| Cheboygan .....      | 6  | Macomb .....       | 16  |
| Chippewa .....       |    | Manistee .....     | 13  |
| Luce .....           |    | Marquette .....    |     |
| Mackinaw .....       | 25 | Alger .....        | 38  |
| Clinton .....        | 19 | Mason .....        | 5   |
| Delta .....          | 20 | Mecosta .....      | 19  |
| Dickinson-Iron ..... | 7  | Menominee .....    | 13  |
| Eaton .....          | 31 | Midland .....      | 5   |
| Emmet .....          | 14 | Monroe .....       | 21  |
| Genesee .....        | 78 | Montcalm .....     | 22  |
| Gogebic .....        | 14 | Muskegon .....     |     |
| Grand Traverse ..... |    | Oceana .....       | 33  |
| Leelanau .....       | 23 | Nawaygo .....      | 10  |
| Gratiot .....        | 25 | Oakland .....      | 46  |
| Hillsdale .....      | 15 | Otsego .....       |     |
| Houghton .....       |    | Montmorency .....  |     |
| Baraga .....         |    | Crawford .....     |     |
| Keweenaw .....       | 48 | Oscoda .....       |     |
| Huron .....          | 20 | Roscommon .....    |     |
| Ingham .....         | 61 | Ogemaw .....       |     |

|                      |    |                  |     |
|----------------------|----|------------------|-----|
| O. M. C. O. R. O. .. | 20 | St. Clair .....  | 40  |
| Ontonagon .....      | 9  | St. Joseph ..... | 15  |
| Osceola .....        |    | Wexford .....    |     |
| Lake .....           | 7  | Kalkaska .....   |     |
| Ottawa .....         | 27 | Missaukee .....  |     |
| Presque Isle .....   | 5  | Tri-County ..... | 20  |
| Saginaw .....        | 41 | Tuscola .....    | 36  |
| Sanilac .....        | 8  | Washtenaw .....  | 71  |
| Schoolcraft .....    | 7  | Wayne .....      | 597 |
| Shiawassee .....     | 28 |                  |     |

The membership enrollment reported to you on Jan. 1st, 1913, was 2,166. Consequently we close our present year with a gain of 37 members.

The directory of the A. M. A. gives Michigan a population of some 4,100 physicians. Inasmuch as this number includes the names of men retired from active practice, engaged in commercial pursuits, employed in laboratories and teaching capacities, as does it also contain many who are not eligible to membership, we feel that conservatively we may estimate that there are 3,400 physicians eligible to membership in our County and State Society. With the enrollment of 2,205 members we have 64% of eligible physicians affiliated with our County and State Organization.

To exercise its greatest influence, to accomplish the work of organized medicine, to exhibit a convincing and impressive opinion on all public and professional questions, our organization should be composed of at least 75 to 80 per cent. of the eligible physicians in the State. To attain this enrollment we have, in so far as our other duties permitted, advanced the following efforts to secure this increased membership:

(1) Editorially we have urged County Societies and individual members to secure the affiliation of their doctor friends who are unaffiliated.

(2) We have also, through the County Secretary's Department of THE JOURNAL, urged the County Secretary to induce his society to institute a membership campaign.

(3) We have, in our visits to several societies, urged the securance of the affiliation of the non-member.

(4) The Secretary of the A. M. A. has under his control a trained corps of canvassers who call upon individual and eligible physicians; explain to them the value to the doctor of membership in his County Medical Society; urge them to file their application for membership, and securing it they place these applications in the hands of the County Secretary for election to active affiliation. In compliance with your recommendation we secured the presence of these canvassers in Michigan on Dec. 1st. They are still engaged in this canvass, and to date a total of 247 members have been secured.

Present indications warrant our prophesying that by March 1st, 1914 we shall have attained a total of 3,000 new members in good standing.

Mere numerical strength, however, should not be our final goal. The future must be made to record the efforts of our organized strength in solving the problems of public health, preventative medicine, eugenics, scientific medicine, and acts of State officials so that the greatest good and highest ideals may be attained and thereby securing for our organization and the individual doctor the respect and consideration to which they are rightly entitled, as well as recognition as being a reliable authority to which our public may appeal in all matters pertaining to health and sanitation. Mindful as we should be of the duty that we owe to our State politic, we must not neglect our individual advancement and betterment, professionally and commercially. Organized effort that will secure to a fuller extent a spirit of universal harmony and friendliness within our ranks, and the increase of our material possessions in just proportions to the services that we render to our patients, demand our study and the adoption of a definite plan of activity. The time is here when Michigan may readily assume the leadership, and thus demonstrate to our sister states the greatest value that may be derived from organized effort. Unless we are content to remain in our present position this phase of organized effort should be given careful consideration.

#### COUNTY SOCIETIES.

There have occurred no changes in the component organizations—our County Societies. With few exceptions they are in a flourishing state and are conducting meetings that are productive of great profit to their individual members. They are conducting meetings that are creating an interest in scientific work and are also considering problems concerning public health, and thus are actively engaged in advancing the work of reform propagandas.

Too much credit cannot be given the Secretaries of the various County Societies. We are indeed sorry that in certain instances the work performed by the County Secretary is too little appreciated. These officials in many instances have the responsibility of the entire society vested in them, and it is their zeal and enthusiasm that determines the standing and achievements of the County Society. Much of their time is required in performing the duties of their office, and it is but proper that the members should recognize in a fitting manner the services that are rendered by County Secretaries. It is a pleasure to acknowledge the general co-operation and assistance that this office has received from these County officials—the hard working secretary merits a special vote of thanks from the State Society. I would request authority to again entertain the County Secretaries at a dinner during our next annual meeting, and urge the presence of the Council at that dinner.

During my term of office I have visited the following County Societies, and in addition to reading a scientific paper at their meetings I have imparted to them general information as to the work that is being done by the State organization:

Berrien  
Genesee  
Mecosta  
Lapeer  
Montcalm  
Upper Peninsula at Ishpeming  
Ottawa  
Wayne  
Tri-County

The increased work entailed in the installing of

a new system of records has prevented me from becoming acquainted with a larger number of county organizations. I have, however, accepted every invitation extended, and trust that the coming year will enable me to find the opportunity of visiting other of the County Societies and thus acquaint them intimately with the work of the State Society as well as ascertaining how their parent organization may best serve them.

I cannot refrain from suggesting that the interests in, and the work of each County Society, would be markedly advanced if it were possible for each Councilor to arrange for the holding of one or two union meetings of the societies of his district during each year. A day's program of short, crisp, live papers followed by active, pre-arranged discussions, and the day ending with a banquet and suitable entertainment features would I believe be productive of beneficial results. It is worth the experiment. I am aware that some of our councilor districts profitably hold such meetings—the mention is made so that such meetings may become universal throughout the State.

While I appreciate that local circumstances, roads and transportation facilities in a great measure govern the time and the place for the holding of meetings, still I believe that no society should hold meetings at longer intervals than one month; semi-monthly is better. Quarterly meetings should be abolished. Each society that holds only quarterly meetings I am sure would take on greater life and greater activity if monthly meetings were held. A member attending a meeting once in three months loses his enthusiasm; his interests wane; and he does not feel the spirit of concentrated organized effort. I would that your body would consider the advisability of urging the holding of monthly meetings of those societies now holding only quarterly meetings.

#### ANNUAL MEETING.

It is hardly necessary to consider the 48th Annual Meeting that was held in Flint, Sept. 4th and 5th, 1913. A record of its transactions has been published in THE JOURNAL, and I think we are fairly agreed as to the success of that meeting.

It devolves upon the Council at this meeting to select the date for the 49th Annual Meeting that is to be held in Lansing during September, 1914.

At the last session of the Council you authorized your Secretary to employ competent stenographers to record the transactions of the annual meeting, and the discussions that followed the various papers that are presented before the sections. Your Secretary requests your authority to revise such discussions and to publish them in connection with the original papers without submitting proof to the utterant. This is asked because it has been our experience that when such proof is submitted it is returned to us so altered that it no longer contains the original thoughts as they were expressed during the discussion.

#### THE JOURNAL.

THE JOURNAL has, I believe, for the first time in its history closed its year with a balance on the profit side of the ledger in addition to publishing a larger JOURNAL at an expense of \$500 additional. For your consideration, information and recommendations the following data is submitted:

No. of Original Articles 122—average of 10 per issue.

Advertising pages Vol. XII 272, Vol. XI 178. Increase 94 pages.

Total pages Vol. XII, 1,190; Vol. XI, 1,042. Increase for year 148 pages.

No. of Editorials 39—average of 3 per issue.



No. of Illustrations 124.

No. of County Society Reports 136.

|  | 1913       | 1912       | Increase |
|--|------------|------------|----------|
| Subscription receipts ..                     | \$2,210.65 | \$2,054.00 | \$244.65 |
| Net adv. receipts .....                      | 3,045.08   | 1,437.90   | 1,607.18 |
| Total cost .....                             | 4,325.97   | 3,821.90   | 504.07   |
| Net profit for year deducting reprints cost: |            |            |          |

|                       | 1913   | 1912   |
|-----------------------|--------|--------|
| Cost per member ..... | \$ .56 | \$ .87 |
| Cost per page .....   | 3.63   | 3.66   |

THE JOURNAL receives its original articles from the essayists before our various sections and in addition the papers that are read before the County Societies. The number thus available has not been sufficient for our needs, consequently we have supplied the deficiency by soliciting the contribution of articles from the leaders of our profession throughout the country. THE JOURNAL has been fortunate in having been designated as the official organ of publication for the Transactions of the Clinical Society of the University of Michigan. The papers available from this source are of immense scientific value and interest, and their publication will tend to increase the interest in our JOURNAL throughout the country as well as throughout the State. Editorially we have endeavored to adhere to the following policy:

To so edit THE JOURNAL that it will reflect the standing of the profession of the state, maintaining its every dignity; to make it of value to every recipient, so that he may obtain some direct benefit from every issue that he receives; to briefly, yet concisely and accurately, chronicle the advancement of general medicine and surgery and their various specialties; to keep the reader enlightened as to State and County Society activities; to publish the medical news of the state and the profession; to conduct an editorial department devoted to comments on society and organization work, medical and social economics, medical and civic legislation, health problems and such other topics as current events may dictate; to secure a class of advertisers who cater to the needs of the profession, and to assure every reader that he may safely enter into business relationship with any one of our advertisers with the conviction that he is dealing with none but absolutely reliable parties. How well we have adhered to this policy during the past year is to be determined by your body and the members of the state organization.

Believing that the consideration of certain subjects and questions falling in the field of the recognized special branches of our profession could only receive the best consideration when discussed by these same specialists, we have adopted the plan of soliciting signed editorials upon scientific subjects from recognized leaders in these specialties in Michigan. During the coming year, with your approval, we propose to feature these editorials upon a larger scale, for it is our opinion that they are of interest to every reader.

Now that THE JOURNAL may be considered as being upon a paying basis, we request your instructions as to the advisability of increasing its number of pages up to 100 or 150 as an average issue. Heretofore the average number of original articles has varied from four to eight. We feel that the JOURNAL will become of greater value and interest if 14 to 18 original articles are published each issue, and thus enable the editor to publish two or three papers in each number bearing upon some subject in each of the several branches of our profession.

#### REPRINTS.

One hundred reprints have been supplied free of charge to each author, the cost of which amounted to \$105.75. I would recommend that this custom

be discontinued and reprints be furnished at regular rates. Many authors do not care for reprints and would not order them if these one hundred were not gratis. The money spent in furnishing reprints will be productive of greater good if invested in increased illustrations and size of our JOURNAL.

#### ADVERTISEMENTS.

The advertising receipts of THE JOURNAL amount to \$3,045.08. An increase of \$1,607.18 over the previous year. The cost of securing this advertising has been \$167.82 paid in commissions to Chicago and St. Louis agents and to Dr. Haughey as per precedent established. By the present arrangement THE JOURNAL has saved some \$600.00 in commissions. The increase in advertising has been secured by means of correspondence on the part of your editor, and in a few instances by personal solicitation.

At the meeting of the A. M. A. in Minneapolis your Secretary-Editor introduced a resolution, the passage of which has secured the establishment in Chicago of a Co-operative Advertising Bureau of State Medical Journals. This Bureau, which commenced operations Dec. 1st, will supply affiliated State Journals with whatever advertising contracts its solicitor may secure from national industries whose advertising copy it is impossible to secure through any other means than personal solicitation. Twenty-five per cent. commission is paid by our JOURNAL for whatever contracts it receives from this Co-operative Bureau.

Throughout the year, by means of editorial comments, blotter reminders and "stickers" on every letter, we have striven to impress our members with the necessity of patronizing our advertisers. This is an extremely important subject, and one which will determine the future success of our JOURNAL. Unless the advertisers receive a reasonable return upon the money they invest in our publication we cannot expect them to continue their patronage. The renewal of their contracts depends upon the returns they receive from their advertisement. Our failure to secure a sufficiently large advertising revenue will be by reason of non-patronage from our members. Without the revenue we will not be justified in enlarging and adding new features to our publication. We consequently urge that each Councilor upon every possible occasion should make it a point to impress this fact upon the members of his district. This co-operation will enable our Society to publish the best of all State Journals.

Our list of subscribers outside of the state is growing. Of the January JOURNAL five hundred copies were mailed to the University of Michigan graduates residing outside of the state. A letter calling attention to the Clinical Transactions, and soliciting a year's subscription accompanied each such sample copy. It is yet too early to report upon the results of this effort to increase our foreign subscribers list.

While we are in a measure satisfied with what has been accomplished thus far, still there remains plenty of opportunity for development work during the coming year. Unless one is conversant with the work that is demanded to issue each number it would be difficult to point out the time and labor involved. In addition to that we have twice changed our forms and makeup, revised our mailing lists and established a new set of accounting books. This additional work has curtailed our efforts towards developing new features, and much that was planned has for this reason remained untouched and awaits future attention. A firm business basis has, however, been established, and THE JOURNAL's future was never more promising.

## CONCLUSION.

There has been established a new membership record system that clearly and distinctly records the status and data pertaining to each member. The transcribing of these 2,300 names and their proper classification and secondary verification was accomplished without the employment of additional clerical assistance.

At present we are engaged in transcribing the minutes and transactions of the Society and Council for the past twelve years so that they may be permanently preserved in official record volumes. This work will be completed by the next annual meeting.

I would be remiss in the discharge of my duty if in closing I failed to acknowledge to you my appreciation of the assistance I've received from many of our members and the officers and committees of the Council. Much that has been accomplished is solely due to the assistance they have rendered unto me. In acknowledging this co-operation from our entire organization I have but one apology to express, and that is my inability to render you a report that records greater field activity on my part.

All of which is respectfully submitted.

(Signed)

F. C. WARSHUIS,  
Secretary-Editor.

The Chairman referred the portions of the report of the Secretary-Editor relating to the County Societies to the Committee on County Societies; that portion relating to the finances and funds of the Society to the Finance Committee; that portion relating to THE JOURNAL to the Publication Committee.

The report of the auditor and the report of the Treasurer was read by D. Emmet Welsh, and referred to the Committee on Finance.

Dr. F. B. Tibbals, Chairman of the Medico-Legal Committee, read the following report:

## ANNUAL REPORT OF THE MEDICO-LEGAL COMMITTEE.

Detroit, Mich., Jan. 20, 1914.

To The Council,

Michigan State Medical Society:

In the four years of this work there have been reported to us 94 cases, 32 of these during 1913. This is a considerable increase over 1912, attributable partly to the fact that all cases arising among our members are probably now reported to us, since the Insurance Company writing most of such business has asked our co-operation for our local influence in the profession. As the prevention of malpractice suits is better than defending them after they arise we are glad to work with the Insurance Company to that end and this unity of purpose has put a stop to the attacks on our efficiency which made some of our members dissatisfied.

We feel that the best part of our work is the influence of this Committee, through its local member particularly, upon the local profession in harmonizing and solidifying them, so that the critical word which starts suits and the adverse testimony which allows them to succeed is increasingly hard to get. There would be but few suits against physicians were we really united and we are making good progress toward that end. Although no new cases can be attributed directly to the workings of the Workmen's Compensation Act, the increase of cases based on trivialities shows that the hungry lawyer is looking for something to replace the speculative business taken away by the Act.

Nineteen thirteen has been our largest year in court cases. We have paid about \$2,150 in attorney fees and court costs in fifteen cases involving eighteen men. In five of these we have taken final judgment where the plaintiff withdrew; ten cases have been fought, and of these we have won seven and lost three. All adverse verdicts are in appeal. In one case the plaintiff put in no testimony in the justice court in order to appeal to the circuit court and there charge malpractice. This was a suit for fees in a fracture of a femur where union with bad alignment was followed by a plating operation; refusal of payment being based on the opinion that the fracture should have been so set as to give a good result without operation, hence the doctor was not entitled to pay for an unsatisfactory result. We took charge of this suit hoping to prevent suit for malpractice but the appeal from our victory leaves the matter still open.

Two of the cases lost were against the same doctor, on similar grounds—failure to keep implied contract in an obstetrical case. In one case with false pains the doctor had been watching around for twenty-four hours or so, but when pains became strong toward the last he was away from his office and the child was born before his arrival. A justice court jury said this was worth \$100. In the other, two cases came together. The doctor stayed with the one that called him first and sent his assistant to care for the other, himself taking charge shortly after the delivery. Patient died a week or so later from pneumonia which is alleged to have been septicaemia, due to his failure to attend himself. It was charged that had he been there he would have made the delivery painless by an anesthetic and that his mere presence would have helped his patient to an easy labor. There was no medical testimony for the plaintiff but an untrained nurse charged the doctor with negligence in not examining the woman when he took charge, and curetting and irrigating the uterus when symptoms of serious illness began. Despite the absence of legal proof of negligence or incompetence the judge allowed the case to go to the jury who gave an adverse verdict of \$500. Both these cases are in appeal with the expectation of obtaining justice for the doctor. (Since writing this report we learn that the judge has set aside this unjust verdict and granted a new trial.) The point raised that of liability under an implied contract, is of interest to every man who takes obstetrical cases. The other case lost is a fracture of the forearm with some deformity but a good functional result. The patient lived sixteen miles away from an X-Ray machine, still a radiographer testified that he thought a doctor negligent who did not have a radiograph in any fracture. As a result of this testimony and the failure of counsel to nullify it by the testimony of local men that such was not their practice or their opinion, a large verdict was brought in against the defendant. He was defended by the best attorneys in his vicinity who thought themselves so competent that, contrary to our instructions, they tried the case without the legal aid of our general attorneys. The outcome of this case has convinced us that many attorneys, prominent in other fields, are incompetent to try medico-legal cases and hereafter we shall send our general attorneys to the trial of all important cases. While this case is being appealed our general attorneys fear that the mis-trial may have deprived the doctor of legitimate legal grounds for appeal. Since this case was tried we have had two hard fought suits where our general attorneys were able to so strongly present the law and the facts that the court directed a verdict for the defendant—one a crippled shoulder, the other an operation on a

tubercular ankle which, it was alleged, so destroyed the bones and ligaments as to render the leg useless and cause subsequent amputation.

This plan of having our general attorneys try every case may necessitate placing more money in the Medico-Legal Fund at some time in the future but will give every important case the benefit of the best legal talent in the state.

We have handled one suit for alleged bad results following the use of neo-salvarsan so successfully that the suit was withdrawn; another testimonial to the influence of the local profession. One death from placenta praevia, coming a few hours after the uterus was emptied has led to many threats, but our success in harmonizing two local doctors has made defense so strong that suit is not expected. One "Sponge" case will doubtless be compromised by the Insurance Co., as the surgeon wishes to avoid the trouble and notoriety of defense. We have one threat involving three men alleging blame for a small fragment of gauze which came out a few months after a very extensive operation of ethmoidal and frontal sinus. We have one suit against two men for failure to find and remove the appendix in an operation for drainage of an appendiceal abscess.

Most of the 1914 cases are based on trivial grounds and but few of them will give any further trouble. As has been said, many of them show the indirect effects of the Workmen's Compensation Act, which has driven the hungry lawyer into other fields of industry. The number of cases awaiting trial, or, in which trial is expected is comparatively small and we enter upon the work of the coming year with great confidence and with increased strength.

Respectfully submitted,

F. B. TIBBAL, Chairman.  
C. B. STOCKWELL,  
E. C. TAYLOR,  
C. W. HITCHCOCK,  
ANGUS MCLEAN.

The Chairman referred the report of the Medico-Legal Committee to the Committee on Finance.

The Chair appointed the following committees of the Council for the ensuing year:

#### FINANCE COMMITTEE.

D. H. McMullen, Chairman.  
A. L. Seeley  
C. H. Baker  
F. C. Witter

#### PUBLICATION COMMITTEE.

A. M. Hume, Chairman  
W. J. DuBois  
W. J. Kay  
C. T. Southworth

#### COUNTY SOCIETIES COMMITTEE.

A. H. Rockwell, Chairman.  
A. P. Biddle  
A. E. Bulson  
R. S. Buckland  
A. S. Kimball

Dr. W. J. DuBois read a letter from Dr. Wilfrid Haughey relative to the payment of commission on certain advertising matter. On motion of Dr. DuBois, supported by Dr. Baker, the correspondence was laid upon the table.

The Council then adjourned for lunch.

#### SECOND SESSION.

The second session of the Council was called to

order at 2 o'clock, the Chairman presiding, and the following Councilors present:

1st District—A. P. Biddle (Absent by reason of illness.)  
2nd District—A. E. Bulson  
3rd District—  
4th District—A. H. Rockwell  
5th District—W. J. DuBois  
6th District—A. M. Hume  
7th District—W. J. Kay  
8th District—A. L. Seeley  
9th District—B. H. McMullen  
10th District—C. H. Baker  
11th District—W. T. Dodge  
12th District—R. H. Buckland  
13th District—F. C. Witter  
14th District—C. T. Southworth  
Treasurer—D. Emmet Welsh  
Secretary-Editor—F. C. Warnshuis.

A. H. Rockwell, Chairman of the Committee on County Societies submitted the following report:

Your committee on County Societies makes the following recommendations:

That the Councilors urge and recommend that the component societies in their district should hold their meetings at intervals of one month, and that if possible they should arrange to hold semi-monthly meetings.

The Council endorses and commends the membership campaign that is being carried on by means of special canvassers who are covering the state, and that the Councilors urge the co-operation of all the members of their component County Societies in assisting the securing of the applications for membership from all the eligible physicians of the various counties.

That the Council again endorse the custom of active field work by the State Secretary and instruct him to continue this work in accordance with his best judgment.

That the Secretary again be authorized to entertain the secretaries of the various County Societies at a dinner during the Annual Meeting that is to be held in Lansing.

That the Secretary be authorized to write to the Board of Trustees of the American Medical Association requesting and urging that the Board of Trustees of the American Medical Association takes such action as may be necessary to secure the payment of the actual expenses of the delegates of the various State Societies to the House of Delegates of the American Medical Association.

That Thursday and Friday, September 11th and 12th, 1914, be selected as the dates for holding the 49th Annual Meeting of the Society in Lansing.

(Signed) A. H. ROCKWELL, Chairman.  
A. E. BULSON  
R. S. BUCKLAND.

Upon motion of Dr. Hume, supported by Dr. Rockwell, the report of the Committee on County Societies was adopted as read and its recommendations concurred in.

Dr. A. M. Hume, Chairman of the Publication Committee, rendered the following report:

Your Publication Committee beg leave to report as follows:

Our Secretary-Editor in his annual report has shown an increased advertising income during the past year of \$1,437.09, and a decreased per capita cost of THE JOURNAL from 87 cents in 1912 to 56 cents in 1913. In view of the facts evident to all, that both the mechanical and literary value of the JOURNAL has greatly appreciated—this is all a matter of great satisfaction to our Society and should be one of congratulation and appreciation of the most efficient work done by our Secretary-Editor.



Your Committee approves of the recommendation of abolishing the plan of a permanent staff of editorial collaborators and recommends that the Editor hereafter secure scientific editorials from leaders in special lines of work throughout the state.

Too much cannot be said to encourage the patronizing of the advertisers in our JOURNAL, and this Committee recommends the adoption of every consistent effort to keep this idea constantly before our members.

It has been shown that with our increased resources from advertising the JOURNAL may be increased to an average paging of one hundred to one hundred and fifty per issue, and still remain self-sustaining. We believe that we should give all value possible to our members in the make-up of THE JOURNAL, and, therefore, recommend that THE JOURNAL be made as large as possible consistent with its resources.

The Secretary-Editor has asked that discussions of papers be edited and printed without submission to the utterant. We recommend that this plan be adopted.

We recommend that the Editor be authorized to purchase a Standard Dictionary for reference in his editorial work.

It is further recommended that the practice of furnishing free reprints to the extent of one hundred to authors of papers be discontinued.

All of which is respectfully submitted.

(Signed) ARTHUR M. HUME, Chairman.  
W. J. DuBois  
W. J. KAY  
CHAS. T. SOUTHWORTH.

On motion of Dr. Southworth, supported by Dr. McMullen, the report of the Publication Committee was adopted as read and its recommendations concurred in.

B. H. McMullen, Chairman of the Finance Committee, made the following report:

Your Finance Committee recommends that the Secretary be authorized to purchase a fire proof safe for the preservation and safe guarding of the records of the Society.

Your Committee also feels that the Secretary-Editor's salary should be raised, and it is the consensus of our opinion that the salary should be fixed at \$1,500 for the ensuing year.

The Committee also recommends that for the present it would be better to invest all our surplus cash in certificates of deposit earning 4 per cent. interest.

The Committee also acknowledges the receipt of the report of the public accountant, W. H. Shultus, and on investigation have reconciled the financial report of the Secretary-Editor and Treasurer and find them correct.

(Signed) B. H. McMULLEN, Chairman.  
A. L. SEELEY  
C. H. BAKER  
F. C. WITTER.

Upon motion of Dr. DuBois, supported by Dr. Kay, the report of the Finance Committee was adopted and its recommendations concurred in.

Moved by Dr. Hume, supported by Dr. Buckland, that the Council approve and recommend to each County Society that they appoint a committee from amongst their members to take up the matter of dealing with illegal practitioners in their respective county. Carried.

Dr. DuBois moved, supported by Dr. Baker, that F. C. Warnshuis be elected Secretary-Editor for the ensuing year. Carried.

Moved by Dr. Baker, supported by Dr. Southworth, that D. Emmett Welsh be elected Treasurer for the ensuing year. Carried.

Moved by Dr. Rockwell, supported by Dr. Seeley, that Frank B. Tibbals be elected as chairman of the Medico-Legal Committee for the ensuing year.

Moved by Dr. Bulson, supported by Dr. Witter, that Dr. E. C. Taylor be elected as a member of the Medico-Legal Committee to succeed himself. Carried.

On motion the Council adjourned to hold its next meeting at 8 o'clock P.M., Sept. 10th, 1914 at Lansing.

W. T. DODGE, Chairman.  
F. C. WARNSHUIS, Secretary.

## Deaths

Dr. John S. Caulkins, Metamora, died on December 30th, 1913, age 92, of heart failure. Dr. Caulkins was one of the best known physicians in that section of the country, having practiced medicine there for the past 66 years. He was an honorary member of the Lapeer County Medical Society and of the Michigan State Medical Society. He was a noted linguist, and the possessor of one of the largest private libraries in that part of the state.

Dr. Henry Lorenzo O'Betz died at his home in Detroit on December 18th, 1913. Dr. O'Betz was at one time Dean of the University of Michigan Homeopathic Medical Department. He was a member of the Wayne County Medical Society and of the Michigan State Medical Society.

Dr. Daniel P. Deming, Cass City, died at his home at the age of 40, after a brief illness of septic poisoning.

## County Society News

### DELTA COUNTY.

The 16th annual meeting of the Delta County Medical Society was held on Tuesday evening, January 20th, in the new Delta Hotel in Escanaba. The following officers were elected for the year 1914:

President—Jas. Mitchell, Gladstone.  
Vice-Pres.—W. A. Lemire, Escanaba.  
Secretary—H. W. Long, Escanaba.  
Delegate—A. S. Kitchen, Escanaba.  
Alternate—Dr. Mole, Foster City.  
Member Medico-Legal Com.—Dr. D. N. Kee, Gladstone.

After the transactions of the business meeting the members adjourned to the banquet room of the Delta Hotel and after participating in a very elaborate meal the following toasts were responded to under the genial guidance of Dr. A. F. Snyder as toastmaster:

The Lawyer—L. C. Girard.  
The Surgeon—G. R. Empson.  
The Clergyman—Geo. Bjorkman.  
The Doctor and the Clergyman—Father Julius.  
The Social Side of Medicine—C. F. Larson.

Those present from outside of the county were Dr. C. F. Larson of Crystal Falls, Dr. Mason of Hermansville, Dr. Sawbridge of Stevenson, Dr.

W. Spaulding of Bark River and Dr. Ptolmey of Trenory.

(Signed) H. W. LONG, Secretary.

### DETROIT OTO-LARYNGOLOGICAL SOCIETY.

A meeting of the Detroit Oto-Laryngological Society was held November 18th, 1913, at the Wayne County Medical Bldg., with Dr. J. Vernon White in the chair.

Dr. H. Dibble, Detroit, as guest, read a paper, "The Pulmotor."

*Extract.* The oxygen from the tank flows through a reducing valve, which at the outlet side maintains a pressure of about 75 pounds, and from there to the controlling valve. Initially, the passage to the lungs is open through this controlling valve. The latter connects to rubber tubes leading to a metallic face cap with a rubber rim which closely fits the patient's face. This face cap on one side is provided with a rubber bag which permits a pair of forceps to protrude, by means of which the patient's tongue is held from obstructing the pharynx. The oxygen then has free access to the lungs.

When the pressure in the lungs has reached a certain degree, about normal, a bellows interconnected with the lung cavity through the rubber tubes actuate the controlling valve. The pressure of the oxygen is now directed so as to create a suction over the connections which lead to the lungs, thereby causing exhalation of the gases previously forced into the lungs. When a certain vacuum is reached in the lungs and bellows, the outer atmosphere acts on the latter, which in turn operates the controlling valve and again admits the oxygen to the lungs. The frequency of these reversals depends upon the size of the lung cavity, a larger space requiring greater time, while with smaller lung cavities the operation is correspondingly more frequent.

This process is continued until the patient shows signs of natural respiration. The pulmotor action is then discontinued and the patient is allowed to breathe the pure oxygen through another small face cap connected by a hose directly to the oxygen tank.

The automatic feature of the apparatus has been brought into play in about fourteen cases of asphyxiation, morphine poisoning, and electric shock, and in one case of acute bronchial trouble in a baby two months of age. Of this total about eight were beyond resuscitation by any method, *rigor mortis* having set in, or other complications being present. In six cases it effectively resuscitated people who, by the attending physician, were considered to be in an almost hopeless condition.

Especially gratifying is the experience with an infant. It was thereby aided in overcoming the crisis in a severe bronchial attack and is now doing well.

The apparatus was demonstrated.

Dr. Wm. J. Cassidy, Detroit, Mich., read a paper: "Fractures of the Cranium with Involvement of Sinuses and Middle Ear."

*Extract:* The distribution of forces applied to the cranial vault depends on:

1. Nature, direction, size and velocity of applied instruments.
2. Cohesion, tensile strength, resistance to immediate pressure of bony structures.
3. Arrangement of supporting buttresses and foramina.
4. Small, mobile base of support—the spine.
5. Nature in the contents—a semi-fluid pulsating

body entirely filling the case, enclosing several large inter-communicating cisterns—the ventricles filled with thin, watery fluid, the whole surrounded by three membranes: (A) The inner composed of delicate elastic covering. (B) The middle network of thin walled blood vessels which dip down into the innumerable convolutions ramifying into the brain substance but not inter-communicating, i. e., they are not vessels. (C) The outer a dense almost inelastic supporting membrane through which course many large arteries and collecting sinuses, supplying the bony case and attached in areas to same.

Analyzing a series of some sixty (60) fractured skulls from service of Dr. Dollman and myself and some twenty (20) in service of Drs. McLean, Brooks and myself, we find that at least 75% involved the base and middle ear, especially middle fossae, the remaining 25% were distributed between anterior and posterior fossae.

#### 1. Elasticity of Cranium.

In classification these fractures varied in method of production from immediate impact overcoming tensile strength of bone (wheel or cake of ice falling on head) to velocity imparted to moving of stationary body by an irresistible force—applied so as to thrust the body some distance, fracture resulting from impact on falling, (e. g., striking a wagon throwing out occupants) or to momentum attained by falling body, (e. g., falling from height), producing fractures varying from simple linear to more extensive crushing, depressed and comminuted, etc., with perforation or vault or base. These applied forces producing intra-cranial lesions designated as concussion—contusion and compression—simply a continuance of same process, i. e., concussion being but temporary stimulation of cortex with loss of consciousness for short time, without any demonstrative brain pressure due to rupture of vessels with hemorrhage and edema.

Will endeavor to illustrate points by following case histories—several histories following. Among them:

Case I. Male, 45 years of age. Entered hospital one hour after accident, most forcibly struck by flying wheel on left frontal eminence. Was dazed for some time after accident, but when I saw him he complained principally of dizziness, headache, and persistent hemorrhage from mouth and nose. On examination I found a 2½ inch wound on left frontal eminence, which, on closer observation showed area of bone about three inches long by three-quarters inches in width crushed inward compressing the brain.

Examination under ether revealed the fragment firmly imbedded in the dura immediately above the sinus, with multiple radiating fractures extending through the orbital plate of frontal bone, cribriform plate of ethmoid, crushing of inner wall of frontal sinus.

Elevation of depressed fragments from sinus was followed by sharp hemorrhage which was controlled by fine cat gut suture.

Removed the ethmoid plate with Crista Galli, posterior wall of frontal sinus, portion of orbital plate, and parietal (L) eminence of frontal bone.

Inserted gauze and rubber drainage. Patient made uneventful recovery and to date is practically well.

Case II. Male of 21 years of age, history of falling from hand car and struck on head by car following.

He entered hospital ten hours later, conscious. Complained of headache, persistent free hemorrhage from head, nose and mouth, temp. 99—P. 120'.

Examination shows 2½ inches laceration over right parietal eminence, bleeding freely on removal

of dressing, presenting a deeply depressed and comminuted fracture of both tables firmly imbedded in outer lobes of brain immediately above the sinus. Under ether anesthesia I gently elevated the fragments, which was followed by sudden severe hemorrhage from the lacerated sinus which could not be controlled by gauze pack. So clamped and attempted to suture, but was unsuccessful as dura was too tense and sutures cut, allowing considerable leakage so decided to reapply clamps and left them in situ. Drained freely with gauze and rubber dam. I removed clamps on the 8th day without further hemorrhage to date. Temperature from 90 to 100 degrees, all gauze removed and patient making uninterrupted recovery.

Lines of fracture extended into cribiform plate of ethmoid; orbital plate of frontal sinus also exposed.

Several very instructive cases followed, exhibiting involvement of the ear. Several X-Ray plates illustrated the paper.

Both papers were discussed generally.

EMIL AMBERG, Secretary.

### EMMET COUNTY.

The Annual Meeting of the Emmet County Medical Society was held at the Cushman House the second Tuesday of December, 1913. There was a good attendance, and more than usual interest manifested. The following officers were elected for 1914:

President—L. W. Gardner, Harbor Springs.

Vice-President—L. S. Crotser, Petoskey.

Secy.-Treas.—G. W. Nihart, Petoskey.

Member Medical Defense—Geo. Reycraft, Petoskey.

Delegate M. S. M. S.—A. E. Runyan, Harbor Springs.

Alternate—J. J. Reycraft, Petoskey.

Censor—J. J. Reycraft, Petoskey.

The following program will be instituted at the meeting for February, 1914:

Report of a case of "Syncytoma Malignum"—Dr. L. Wheeler.

"Pneumonia"—Dr. A. E. Runyan.

Paper (Subject not known)—Dr. John Reycraft.

After an inspiring talk urging the elimination and personal feeling among the members and hard persistent work to further the interests of the profession in Emmet County by Dr. L. W. Gardner, president-elect, the meeting adjourned to meet Feb. 13, 1913.

G. W. NIHART, Secretary.

### GENESEE COUNTY.

The regular monthly meeting of the Genesee County Medical Society was held Jan. 6th, 1914.

A paper entitled "Vaccine Therapy in the Light of its Recent Developments," was read by Dr. A. P. Ohlmacher of Detroit. Following the discussion of this paper Dr. W. M. Clift of Flint read a paper on "Food Disturbances in Infancy."

R. D. SCOTT, M.D., Secretary.

### HILLSDALE COUNTY.

The Annual Meeting of the Hillsdale County Medical Society was held December 30th, 1913 in the Mitchel Library rooms.

Dr. Warthin gave a lecture and lantern slide demonstration on Cancer. The meeting was well

attended by the profession and also laymen. All seemed to be much pleased and gained considerable information regarding cancer and its influence on heredity. Dr. Warthin was tendered a vote of thanks of the Society.

The following officers were elected for the ensuing year:

President—Dr. B. F. Green, Hillsdale.

Vice-President—Dr. H. H. Frazier, Hanover

Secy.-Treasurer—Dr. C. T. Bower, Hillsdale.

It is planned to hold monthly meetings during the coming year.

C. T. BOWER, Secretary.

### KALAMAZOO ACADEMY.

The Minutes of the Thirtieth Annual Meeting of The Academy of Medicine.

The minutes of the meeting of November 25th were read and approved. The annual report of the Secretary was called for by the Chairman and read as printed in the Bulletin. Dr. W. den Bleyker moved, Dr. A. H. Rockwell supporting, that the report be accepted and placed on file. Carried. Dr. A. S. Youngs, Chairman of the Clinical Program Committee gave the report as printed in the Bulletin. Dr. B. A. Shepard moved, Dr. A. H. Rockwell supporting, that the report be accepted and placed on file. Carried. Dr. Edward Bernstein reported for the Library Committee as printed in the Bulletin with some additional remarks, Dr. A. H. Rockwell moved, Dr. J. B. Jackson supporting, that this report be accepted and placed on file. Carried. Dr. Della Pierce reported for the A. M. A. Committee. She elaborated upon her report more than was printed in the Bulletin but all essentials had been expressed in the Bulletin. It might be mentioned in passing that the A. M. A. Committee reimbursed the Academy for all expenses incurred for the lecture of Dr. Evans. Dr. J. B. Jackson moved, Dr. W. A. Stone supporting, that this report be accepted and placed on file. Carried.

Dr. Herman Ostrander, Chairman of the Anti-Tuberculosis Society, did not make a report for the Bulletin, but only emphasized the work of the Committee as was being carried on by the Anti-Tuberculosis Dispensary. The report, as made by Dr. Ostrander, was moved accepted by Dr. C. H. McCain, Dr. G. F. Inch supporting, and was placed on file. Dr. Walter den Bleyker reported for the Illegal Practice Committee, which was essentially as given in the Bulletin and presented the resolution, which is as follows: "Be it Resolved, That the Academy of Medicine heartily endorses the attitude that the Chicago Tribune has taken toward all fake medical advertising, quack doctors, patent medicine, etc., and the elimination of all such advertising from its columns.

Be it further Resolved, That the Secretary be instructed to make copies of said resolution, one for the files of the Academy and one to be mailed to the Chicago Tribune, and to each local paper."

Dr. Edward Bernstein supported this resolution. Carried.

Dr. Edward Bernstein moved that \$75 be appropriated from the funds of 1914 for use of the library. Discussion by Dr. Herman Ostrander and Dr. L. H. Stewart. Dr. J. B. Jackson supported this motion, which was voted on and carried. The Chairman, Dr. C. E. Boys, brought emphasis to bear upon the annual dues. He stated specifically that our meetings cost 23 cents per member, but that each member paid but 8 cents for each meeting. The special assessment brought the actual receipts up to the actual cost. He also called the attention of the Academy to the fact that it was



impossible for any one to attend an out-of-town meeting of the type we hold for less than \$15.

The application of Dr. C. D. Pullen was acted upon by the Board of Censors, which consisted of Drs. O. H. Clark, Walter den Bleyker, E. P. Wilbur, W. F. Hoyt, J. H. Crosby, G. T. Britton, C. H. McKain. A motion was made and supported that Dr. Chas. Pullen be elected to membership and that application be put on file. Carried.

The committee on elimination of noise as appointed by the Board of Directors of Bronson Hospital, presented a communication at the last meeting of the Academy, a paragraph of which the Secretary wishes to strongly emphasize. The paragraph is as follows: "A request will be made of the owners of commercial trucks and vehicles that they instruct their drivers to observe our wishes in this particular, and we desire in this communication to expressly request the physicians operating automobiles to have this matter in mind, and to refrain from making unnecessary noise in operating their machines."

Every physician realizes the detrimental influence of unnecessary irritation, whatever may be the cause, and should co-operate with this committee in every particular, for this co-operation helps your patient.

The meeting now passed to the annual election of officers.

Dr. O. H. Clark moved, Dr. E. J. Bernstein supporting, that nominations for president be made from the floor. Carried.

Dr. Bernstein nominated Dr. Frederick Shillito, Kalamazoo, Mich.

Dr. Ellsworth nominated Dr. L. H. Stewart, Kalamazoo, Mich.

Dr. Della Pierce nominated Dr. A. I. Noble, Kalamazoo, Mich.

Dr. Rockwell nominated Dr. W. den Bleyker, Kalamazoo, Mich.

Dr. O. H. Clark nominated Dr. J. E. Maxwell, Decatur, Mich. Supported by Dr. Stewart.

Dr. J. H. Crosby moved, Dr. G. F. Inch supporting, that nominations be closed. Carried.

Dr. Inch of Kalamazoo, and Dr. Stewart of Hartford, were appointed tellers by the chair. Some discussion ensued as to the method of voting.

Dr. Jackson moved, Dr. Bernstein supporting, that they drop the man that had the lowest number of votes. Carried.

Total number of votes cast on first ballot were fifty.

|                                |    |
|--------------------------------|----|
| Dr. Maxwell received .....     | 12 |
| Dr. Noble received .....       | 3  |
| Dr. den Bleyker received ..... | 13 |
| Dr. Shillito received .....    | 9  |
| Dr. Stewart received .....     | 13 |

Total number of votes cast on second ballot were fifty-two.

|                                |    |
|--------------------------------|----|
| Dr. den Bleyker received ..... | 19 |
| Dr. Shillito received .....    | 12 |
| Dr. Maxwell received .....     | 21 |

Total number of votes cast on third ballot were fifty-four.

|                                |    |
|--------------------------------|----|
| Dr. Maxwell received .....     | 33 |
| Dr. den Bleyker received ..... | 21 |

Dr. J. E. Maxwell was elected President of the Kalamazoo Academy of Medicine for 1914.

The report of the nominating committee was received and read. The committee, which consisted of Drs. G. D. Carnes, J. B. Jackson and J. H. Crosby nominated the following members for the various offices respectively:

1st Vice-President—E. F. Swift, Comstock.

2d Vice-President—H. L. Charles, Paw Paw.

3d Vice-President—S. R. Light, Kalamazoo.

Secretary—C. B. Fulkerson, Kalamazoo. (hold over).

Treasurer—Frances Elizabeth Barrett, Kalamazoo.

Board of Censors for three years—A. W. Crane, Kalamazoo; W. A. Stone, Kalamazoo.

Delegates to the Michigan State Medical Society: G. F. Inch, Kalamazoo; C. E. Boys, Kalamazoo; F. C. Penoyer, South Haven.

Alternates—Malcolm Smith, Allegan; A. S. Youngs, Kalamazoo; LaVerne Rogers, Galesburg.

Dr. A. H. Rockwell moved, Dr. B. A. Shepard supporting, that the Secretary cast the ballot for the various nominations and declare them elected. Carried.

Having concluded the part of the program devoted to the election of officers and general business the meeting proceeded to the program of the day, in which about eighty members and visitors demonstrated an unusual interest.

Program:

1. Diagnosis and Treatment of Certain Obscure Infections with Special Reference to Arthritis.—Dr. Ernest E. Irons, Chicago, Ill.

Discussion opened by W. A. Perkins, Kalamazoo; Dr. J. H. Crosby, Plainwell; Dr. R. G. Leland, East Leroy, Mich.

2. Observations on Gastric Ulcers: A Study of Six Hundred Cases.—Dr. Christopher Graham, Rochester, Minn.

Discussion opened by Dr. R. R. Smith, Grand Rapids; Dr. O. H. Clark, Kalamazoo; Dr. A. W. Crane, Kalamazoo; Dr. Henry Hulst, Grand Rapids.

The meeting adjourned for the evening program, which included visitors from Chicago, Evanston, Grand Rapids, Battle Creek, and Rochester Minn.

Evening Program:

Social half hour at 6:30.

At 7:00 o'clock about 48 members and visiting colleagues enjoyed a banquet in the dining room of the New Burdick.

Toastmaster, Dr. Herman Ostrander.

Exaugural Address—Dr. C. E. Boys, Kalamazoo.

Reminiscences—Dr. Hemmenway, of Evanston, Ill.

Toast—Hon. Walter Taylor, Kalamazoo.

Dr. C. H. McKain, Dr. Christopher Graham, Dr. E. E. Irons and Prof. W. E. Praeger, responded to invitations from the toastmaster, by impromptu remarks.

Dr. G. D. Carnes was not able to be present.

(Signed) C. B. FULKERSON, Secretary.

## KENT COUNTY.

The Eleventh Annual Meeting of the Kent County Medical Society was called to order by the President, Dr. Boise, on the evening of Dec. 10th, at 8:30 P.M. Dr. DuBois made a verbal report as Councillor for the 5th District, in which he encouraged greater activity in discussions of papers. He also referred to the matter of not permitting lay visitors to attend our meetings, and suggested the advisability of some other place for our regular meetings.

Dr. Brooks made a verbal report for the Delegates to the State Meeting and reported in regard to the Committee appointed by the State Society to confer with physicians throughout the state to arrange a fee schedule for work under the Compensation Act. He also referred to a schedule of fees published in a recent number of the STATE JOURNAL.

Dr. Rowe reported for the Public Health and

Legislation Committee in which he referred to the several bills passed the last Legislature and also of some that would probably come before that body soon. Among these he mentioned the Pure Food, Odel Bill for the sterilization of weak minded and insane individuals, and of a bill pending that would allow Chiropractors in practice three years to continue.

Dr. Graves reported for the Public Health Education Committee in which he made mention of the work started a year ago, that of giving papers of general interest, before the various clubs, and the successful continuation of this. He also called attention to the meeting to be held in the Baptist Church on the evening of Dec. 21st, at which Dr. Sawyer was to speak.

Report of the Legal Representative, Dr. McBride. His work was very light, there having been only one case pending during the last year, that has not yet been settled. Two new cases were threatened, one for an infiltration following an injection of salvarsan; this case was finally dropped. The other suit was started for an alleged improper fixing of a fracture of the neck of the femur—this case was indefinitely postponed. The suits are usually the outcome of animosity existing between various physicians; this could be greatly overcome if the physicians would work more in harmony. Most of these suits are more "bluff" than anything else. The cases should be freely discussed before the Society.

Secretary-Treasurer's report. Dr. E. W. Dales.  
Cash on hand, Jan. 1st, 1913 ..... \$125.25  
Cash received during year:  
Dues, Special Assessment and Bulletin Ad-  
vertising ..... 909.25

Total Expense during year ..... \$1,034.50  
810.95

Cash and bills collectable ..... 223.55  
Number of members ..... 154  
Moved away during year ..... 1  
Died during year ..... 4  
New members elected ..... 9  
Number of meetings ..... 15  
Total attendance ..... 553  
Average attendance ..... 42  
Number of papers ..... 25  
Unpaid dues ..... 19  
Invited guests ..... 11

Dr. Boise, the retiring president, after thanking the members for their co-operation during the year, read an address on Preventive Medicine.

#### Election of officers:

Dr. Alexander M. Campbell was nominated for the office of President and elected to the office by unanimous vote.

Dr. R. H. Spencer was elected Vice-President.

Dr. J. J. Fabian was elected Secretary-Treasurer.

Dr. E. W. Dales, Assistant Secretary-Treasurer.

Delegates to the State Society—J. D. Brook, C. C. Slemons, T. M. Koon.

Alternates—H. J. Pyle, R. Apted, A. J. Baker.

Defense League Rep.—G. L. McBride.

The following Committees were appointed for the ensuing year:

Board of Directors—D. Emmet Welsh, Chairman; Eugene Boise, B. R. Corbus, Ex-Officio, A. M. Campbell, J. J. Fabian.

Public Health and Legislation—T. M. Koon, Chairman; Louis Barth, C. C. Slemons.

Anti-Tuberculosis Committee—Ralph Apted, Chairman; A. V. Wenger, T. C. Irwin, C. H. Johnston, W. Northrup.

Public Health Education—H. W. Dingman, Chairman; C. S. Graves, F. Rutherford.

Library Committee—J. B. Whinery, Chairman; R. H. Smith, C. E. Hooker.

Entertainment Committee—F. C. Warnshuis, Chairman; B. H. Corbus, J. J. Fabian, Henry Vandenberg.

Visiting Sick Committee—F. J. Lee, Chairman; R. D. Joldersma, S. L. Rozema, F. C. Kinsey, H. S. Collisi.

The first regular meeting of the year of The Kent County Medical Society was held at the City Hall Wednesday evening, Jan. 14th, at 8 P.M. Dr. Alexander M. Campbell presiding. There were present 66 members.

Application of Dr. J. W. Shanks for membership was favorably voted upon.

Dr. U. J. Wile of Ann Arbor, delivered the address of the evening, his subject being "An Estimate of the Value of the Wassermann Test to the General Practitioner." Among the many instructive practical points brought out in the paper, he deplored the necessity for the use of the Wassermann Test in certain characteristic syphilitic skin and mucous membrane manifestations, i. e., all cutaneous and mucous patches. These should always be recognizable and positively diagnosed without the aid of laboratory tests. The indiscriminate use of the Wassermann Test in all cases tends to lessen the acuity of personal observation of the average man. It too often happens that the element of error in technic, and lack of infallibility of the test cannot always be excluded, these possibilities should always be taken into consideration.

No woman should be permitted to be engaged as a wet nurse without a Wassermann Test. Hereditary syphilis always gives a positive reaction, excepting occasionally in latent cases. The Wassermann Test should find its greatest sphere of usefulness as a guide to treatment.

Dr. Frieda Hirschberg read a paper on "The Practical Consideration of the Wassermann Test With Report of Cases."

Dr. Hirschberg illustrated her paper with diagrams and test tube demonstrations. She reported the results of 300 tests.

"The Complement Fixation Test in the Diagnosis of Gonorrhea," was the title of a paper read by Dr. Paul Miller.

A paper on "The Serum Diagnosis of Pregnancy with Report of Cases," was read by Drs. A. M. Campbell and J. N. Wenger. Dr. Campbell showed specimen of dermoid cyst removed from patient in which pregnancy was suspected and its possibility excluded by means of the Alderhalden Test.

The following physicians presented clinical cases and participated in the discussions: Drs. C. E. Hooker, C. H. Johnston, A. H. Williams, V. J. Moore, James Ardiel, W. F. Hake, Louis Barth, G. L. McBride, J. J. Fabian, H. J. Vandenberg, and R. D. Joldersma.

J. J. FABIAN, Sec'y-Treas.

#### LENAWEE COUNTY.

The annual meeting of the Lenawee County Medical Society was held in December, 1913, and the following officers were elected for the year 1914:

President—J. L. Spaulding, Hudson.

Vice-Pres.—Dr. G. M. Lochner, Adrian.

Sec'y-Treas.—F. A. Howland, Adrian.

Delegate to State Medical Meeting—A. W. Chase, Adrian.

Alternate to State Medical Meeting—O. Whitney, Jasper.

Member Medical Defense—Dr. L. G. North, Tecumseh.

The meeting was well attended and much enthusiasm manifested, and plans made for more extensive work during the coming year.

Dr. F. A. HOWLAND, Secretary.

On January 14th, 1914, a meeting of the Lenawee County Medical Society was held. This meeting was the liveliest meeting we have had in over a year; more real interest was shown and a larger attendance present than we have had present for some time.

Dr. M. R. Morden of Adrian read a very interesting paper on "Physical Therapy," and it was very generally discussed by the doctors.

Our February meeting promises to be even more attractive than the meeting just held as we have a very good program prepared, and it is going to be held in the best moving picture theater here and the address illustrated by lantern slides. This meeting will be held on the 18th of February at 3 P.M.

F. A. HOWLAND, Secretary.

### ONTONAGON COUNTY.

The Ontonagon County Medical Society met at Elk Hotel, Ontonagon, at 2 P.M., with President F. W. McHugh in the chair. Seven members were present out of the total of ten.

A very able paper was presented by Dr. A. L. Swinton on "The Treatment of Infected Wounds." The paper was discussed by all the members present.

The next meeting of the Society will be held on the second Wednesday in March, our president, Dr. F. W. McHugh to have a paper.

(Signed) J. S. NITTERAUER, Secretary.

### WAYNE COUNTY.

The following programs were carried out at the regular meetings of the Wayne County Medical Society:

January 5th, The Progress of Roentgen Therapy by Rollins H. Stevens.

January 12th, Toxicology, by Chas. B. Leonard and W. H. Allen.

January 19th, Thoracic Demonstration, by R. M. Ricketts, Cincinnati, Ohio.

On Monday, February 9th, Dr. Fred H. Albee will address the meeting on "Original Uses of the Bone Graft, a Report of 225 Cases."

C. P. CLARK, Secretary.

### State News Notes

Dr. Carl H. Buckner, physician to the Ionia Reformatory, has been appointed by Gov. Ferris as a member of the State Board of Pardons.

Dr. F. G. Warner of Grafton has been appointed surgeon for the Mississippi Power and Transmission Co.

Dr. C. G. Robertson of Sandusky was married to Miss Florence S. Detweiler of Brown City on December 18th.

Henry E. Vaughan has been appointed as sanitary engineer of the Detroit Board of Health.

Dr. R. E. Mills of Boon was injured December 19th by the turning turtle of his automobile. The doctor sustained a fracture of several ribs.

Dr. L. J. Seville of Elkton has located at Harbor Beach.

Dr. A. Patterson of Flint was convicted by a jury of having furnished an instrument which was used in performing a criminal operation upon a certain patient.

Dr. F. M. Ilgenfritz of Kalamazoo was elected County Physician by the Board of Supervisors.

Dr. F. S. MacDonald has been appointed Chief of Staff for the Wolverine & Mishawak Mining Co., Calumet. The doctor was formerly a practitioner of Detroit.

Dr. Krieger, formerly located at Newport, has opened an office at Rockwood.

The Grand Rapids Board of Health has appointed Dr. A. H. Edwards as Medical School Examiner.

Dr. Wm. Bell, for a number of years member of the Michigan State Board of Medical Examiners, sustained a stroke of apoplexy on January 3rd.

Dr. Seymour H. Stone of Boston delivered an address at the Annual Meeting of the Detroit Tuberculosis Sanatorium on February 19th.

Dr. L. W. Howe was elected secretary of the newly organized Anti-Tuberculosis Assn. of Coldwater.

Dr. John L. Burkhart of Big Rapids has been appointed by Gov. Ferris as secretary of the State Board of Health to succeed Dr. Dixon. The appointment took effect Jan. 1st.

Dr. V. C. Vaughan, Sr., Dr. R. L. Dixon, Dr. Guy L. Kiefer, addressed the meetings of the Jackson Sanitary Convention, which was held in Jackson on January 13th.

Dr. R. L. Dixon of the State Board of Health reports that of the 1,613 cases of smallpox that were reported during last year, 1,444 of the patients had never been vaccinated.

Prof. W. C. Hoad of Ann Arbor has completed a typhoid fever death rate chart covering the period from January 1st, 1904 to December 30th, 1912. This report shows that the highest death rate from typhoid was in 1908.

Dr. Reuben Peterson, Ann Arbor, addressed a public meeting in the Congregational Church at Lansing, January 8th. The subject of his address was "How a Hospital May Serve a City and How That Service May Be Improved." The paper will appear in an early issue of THE JOURNAL.

Dr. Chas. O. Jennings, Chief of the Medical Staff of Harper Hospital, was the guest of honor at a dinner given in Detroit on January 9th by the members of the Hospital Staff and other and professional friends. The doctor was largely responsible for the erection of a new Buhl memorial unit that was added to Harper Hospital.

The Southwestern Michigan Triological Assn. was organized in Kalamazoo on November 3rd. The officers of the Association are: Dr. E. J.



Bernstein, Kalamazoo, President; Dr. John R. Rogers, Grand Rapids; Dr. Winter, Jackson; Dr. Sleight, Battle Creek, Vice Presidents; and Dr. Wilfrid Haughey Battle Creek, Secretary. The monthly meetings are to alternate in the cities of Jackson, Battle Creek, Kalamazoo and Grand Rapids.

The American Bankers Insurance Co. have reduced their examination fees from \$5.00 to \$3.00 and \$2.00.

The 12th International Congress of Ophthalmology will be held in St. Petersburg July 28th to August 15th. An invitation to the profession of Michigan has been extended by the President of the Congress through Dr. Haughey of Battle Creek, and to whom all inquiry for further information should be addressed.

A warrant for "Doctor" N. C. Ross, whose Chiropractor School was raided in Detroit during the graduation exercises on December 23rd, has been issued by the County Prosecutor of Wayne County. The warrant charges the Chiropractor with unlawfully issuing a medical diploma. The case will come up for trial at an early date.

Several hundred doctors enjoyed the annual New Year's Day reception at the Detroit College of Medicine. The laboratories of the College have been completely remodeled and equipped with the latest appliances for the making of laboratory examinations.

The Coldwater Physicians Club at its annual meeting on January 12th resolved to send monthly statements to their patients, and if no attention is paid to these, after three statements have been sent, to place the names of the debtors in the delinquent for the benefit of other physicians.

Since the Sand-filtration Plant was opened on Jan. 1st, 1913, the number of typhoid fever cases in Grand Rapids has been reduced from 613 in 1912 to 139 for the year 1913. The deaths in 1912 were 40, in 1913 20, or a reduction of 50 per cent.

Dr. Guy L. Kiefer entertained the members of the Council and a few invited guests at his home on January 19th. The genial host had prepared a dinner that appealed to all who participated, and the evening was spent in the discussion of the various problems that are confronting the medical profession of the State. The guests present were unanimous in their expression of their appreciation of the hospitality of Dr. Kiefer.

Miss Ernestine Randall Burr, one of the most popular women of Flint, died suddenly at the residence of her parents, Dr. and Mrs. C. B. Burr, on January 12th. Rheumatic paralysis of the heart, which developed following an illness six weeks previously was the cause of death. The illness of Miss Burr began with an apparently mild case of diphtheria.

Miss Burr had gained a reputation among her friends as a charming hostess and her entertainments for her friends were always among the foremost social events of the city.

The Genesee County Medical Society passed the following resolutions of sympathy:

"In behalf of the Genesee County Medical Society the officers and directors in meeting today extend to Dr. and Mrs. Burr deepest sympathy in their great bereavement occasioned by the loss of their daughter, Ernestine Randall Burr, a young

woman esteemed and beloved by all who knew her, for her sterling qualities, her filial devotion, and her sincere and loyal nature."

## Correspondence

Paw Paw, Mich., Jan. 5, 1914.

To The Editor of THE JOURNAL:—

Permit me to congratulate you on the January edition of THE JOURNAL of the Michigan State Medical Society. I think it the best in matter of form, subject matter, and paper I have ever seen, not excluding any.

Very truly yours,

H. L. CHARLES, M.D.

Mount Pleasant, Mich., Jan. 1, 1914.

Dr. F. C. Warnshuis, Secretary:—

The January issue of THE JOURNAL has just reached me. I desire to congratulate you on its fine appearance. When you first changed to the present size I did not like it, the main reason being that the change was made other than at the end of the year. Your present issue completely convinces me that you did the right thing in changing the size. The paper, the print and the general makeup of this last issue are all excellent.

You understand as well or better than I how foolish and unbusinesslike it is to continue the JOURNAL and membership a minute after the paid subscription has expired. It teaches slackness, makes a lot of needless work for all the secretaries and gives a premium for dishonesty. Those who won't pay get five numbers for being dishonest, which loss has to be made up from the money paid by the prompt members. In order to force this matter to the attention of the Council I am reporting the fact that you are furnishing the magazine for five months after paid subscriptions have expired—an act that I believe is unlawful.

Yours very fraternally,

S. E. GARDINER, M.D.

Ft. Wayne, Ind., Jan. 6, 1914.

Dear Dr. Warnshuis:—

My attention has just been called to the January number of your JOURNAL which has just arrived, and I want to sincerely congratulate you upon the general excellence of the number. Mechanically, I hardly see how it could be improved upon, and the many illustrations are splendid. Furthermore, the scientific articles and the editorials are such as to make the members of your association proud of their JOURNAL. If you can keep up the pace and will carry no objectionable advertising, you will make every state journal editor hustle to keep up with you.

With cordial regards,

Sincerely yours,

ALBERT E. BULSON, JR., *Editor*.  
Indiana State Medical Journal.

Chicago, Ill., Jan. 6, 1914.

Dear Doctor Warnshuis:—

Your January issue is great. I want to congratulate you on the splendid illustrations. A journal like you are getting out, combined with business ability, cannot help but force to the front. Not being a medical man, I am unable to comment upon the articles; but when I see names like Peterson and Judd among your contributors, I know that

your readers will appreciate what you are doing for them.

As ever, I remain,

Sincerely yours,  
WILL C. BRAUN,  
Business Manager, Journal of the A. M. A.

Norristown, Pa., Jan. 9, 1914.

Dear Doctor Warnshuis:—

Through the kindness of Dr. Welsh of Grand Rapids I have the opportunity of reading the MICHIGAN STATE MEDICAL JOURNAL. I have been an editor of a little county bulletin and can appreciate a good live journal.

Let me express to you the great benefit, cheer and encouragement I have received from the alert pages of your JOURNAL, so full of vim and vigor. Too frequently I think we underestimate our efforts and feel discouraged. On this account I wish to commend you and tell you to keep on, keep on.

Most cordially yours,  
HOWARD F. PYFER, M.D.

Hancock, Mich., Jan. 7, 1914.

Dr. Frederick C. Warnshuis,  
Grand Rapids, Mich.

Dear Doctor:—

Allow me to congratulate you on your January number both as to its outside dress and intrinsic value. Even the type of the title is an improvement.

Wishing you much success for the New Year and continued prosperity, I am

Fraternally yours,  
ARTHUR F. FISHER, M.D.

Ionia, Mich., Jan. 14, 1914.

Dr. F. C. Warnshuis, Grand Rapids, Mich.

My dear Doctor:

First allow me to congratulate you upon the last issue of THE JOURNAL as being one of the finest pieces of medical journalism ever brought to my notice. Its contents, subject matter, illustrations and advertisements are withal extra fine. This JOURNAL is one every member of the profession should be proud of, and no Michigan medical man can afford to be without it.

With best wishes for continued success, I am

Very respectfully,  
(Signed) H. B. KNAPP.

### *County Secretaries Department*

SHALL THE PROGRAM OF THE COUNTY MEETINGS BE MADE UP OF HOME TALENT, OR BY INVITED GUESTS FROM OUTSIDE THE COUNTY?

When the Secretary for the Secretaries asked me to prepare a paper, he put the emphasis on the word short. I believe I have satisfied him in this respect if in no other.

We have difficulty in getting our members to read papers for our regular quarterly meetings, so much difficulty that I have said we have more modest doctors in Gratiot county than in any other county in the state. A few are always ready to prepare a paper, the balance are

of two classes: the one will promise to prepare a paper and not show up at the meetings at all and the other will refuse outright. We spend hours telephoning and writing, finally get some promises, have a good program printed and mailed, and then to our chagrin only one or two show up to read their papers. We have tried to have clinics with local talent, but these are rather difficult to manage or make up out of a general practice. Many private patients are reluctant to appear, and then the little local jealousies seem to make the doctors rather careful about showing their cases.

The Montcalm County Society gave their Secretary permission to put a member's name down for a paper without consulting him. This I think a very good plan, for when I lived in Montcalm, they seemed to have very good meetings. There is one advantage of having a program made up of our own members, we get a better discussion than when we have some one from outside; and a good discussion always adds to the interest of the meeting. The members are rather reluctant or modest about discussing a visitor's paper. We have, therefore, found that taken altogether we have a better attendance, a better program, and we believe a better satisfied membership by having some one from outside the county.

We would like to hear how some of the rest of you induce your members to prepare and read papers.

E. H. HIGHFIELD.

We hope that our secretaries will respond to the doctor's request and send us their experiences for publication in this department.

No county society has done its full duty toward the profession of the county unless it has given every eligible physician an opportunity to become a member of the organization. Regardless of personal feelings, every physician in the county who can comply with the qualifications for membership should be asked to affiliate. This should not only be done once, but repeatedly, and as often as necessary until every physician is a member. To this end we are lending your society our assistance by means of our membership campaign.

The work of the organizers who are calling upon eligible members of the profession and securing their affiliation was begun on December first. The holiday season necessarily compelled a period of inactivity, but the work was resumed on January 2nd, and at present writing 247 applicants have been elected to membership. The work will continue until the entire state has been covered.

The time consumed in the canvass of each county cannot be estimated. It is therefore difficult to inform you as to when you may expect the canvassers in your county. You may

rest assured that they will reach you in due course and then we bespeak your hearty cooperation.

With a material gain in membership your society should experience a stimulus that will bring about the holding of a series of successful meetings. Make it a point to see that this result is attendant upon the addition of a number of new members and thus cause your organization to enjoy to the utmost the benefits derived from organized efforts.

The minutes of the January meeting of the Council are contained in this issue. Make an extract of them and read it at your next meeting.

The dues are payable, and we recommend that your delinquent members be notified that on April 1st they will be placed upon the suspended list. The March JOURNAL will be the last one that will be mailed to any member whose dues are not paid before April.

THE JOURNAL desires to publish a report of every meeting that is held by your society. Will you not endeavor to see that we are furnished with such reports. We will appreciate your securing and sending to us the papers that are read at your meetings. THE JOURNAL can use them all.

Kindly do not neglect to report the changes in your membership. This is necessary in order that we may keep THE JOURNAL mailing list revised to date. It has occurred on several occasions that the first notice of a member's removal or death came to us from the Postal authorities who report their failure of being able to deliver THE JOURNAL to the addressee.

The annual elections that have been held by our various Societies have created several changes in the office of secretaries. To these new secretaries we extend our congratulations, and assure them of our willingness to co-operate and assist them in performing the duties of their office. Do not hesitate to write to us on any subject pertaining to organization work upon which you are in doubt. We are desirous of lending you every possible assistance.

### *Book Reviews*

**DISEASES OF THE NERVOUS SYSTEM.** For the General Practitioner and Student. By Alfred Gordon, A.M., M.D., late associate in nervous and mental diseases at Jefferson Medical College. Second Edition. Revised and enlarged with one hundred and sixty-nine illustrations. Cloth, 617 pages. Price \$4.00. P. Blakiston's Son & Co., Philadelphia.

This is a work intended for the general practitioner and student. It is practical and surmounts the difficulty of securing an every-day working knowledge of a subject that has always been difficult. It is a plain and practical account of diseases of the nervous system. It supplies a want. The pathology, differential diagnosis, course and termination, prognosis, etiology, treatment and methods of examination are discussed in a clear and comprehensive manner.

The second edition describes the newer facts in a concise and at the same time in a complete manner. Each chapter has been enlarged upon, and treatment has received special attention in accordance with modern methods.

This book is a valuable addition to one's library. It merits a cordial reception.

**PRINCIPLES OF SURGERY.** By W. A. Bryan, A.M., M.D., Professor of Surgery and Clinical Surgery at Vanderbilt University, Nashville, Tennessee. Octavo of 677 pages with original illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth \$4.00 net.

This work accomplishes its purpose of placing the fundamental facts of surgery before the physician and student in a simple and logical way. It lays a firm foundation upon which one may build understandingly the immense amount of details met in the practice of surgery.

It is a book for the general practitioner because it presents the facts upon which surgical diagnosis and treatment rests. The general practitioner is in need of a text book giving this information regarding modern surgery, for usually the majority of surgical cases consult the medical men first. To advise his patients intelligently and wisely he must be conversant with the principles of surgery.

The field has been well covered. The work is admirably illustrated. It is a trustworthy guide. It is one of the most satisfactory books of its class.

**MATERIA MEDICA, PHARMACOLOGY, THERAPEUTICS AND PRESCRIPTION WRITING.** For students and practitioners. By Walter A. Bastedo, Ph.G., M.D., Associate in Pharmacology and Therapeutics at Columbia University. Octavo of 602 pages, illustrated. Philadelphia and London: W. B. Saunders Co., 1913. Cloth \$3.50 net.

Simple and practical therapeutics, the trend of the present day practitioner is well exemplified in this book—in most part the author's lectures upon these subjects at Columbia University. Practicality and usefulness of each preparation receives first attention. The chapter discussing digitalis at length is a feature and alone is of scientific value and interest.

Many of us are too prone to keep up on Materia Medica and Therapeutics by reading the circulars sent out by the various pharmaceutical houses. If instead we would from time to time purchase an authentic text book such as this one our therapeutic results would be more grateful.

There is nothing to criticize but much to commend. It accentuates the essentials and omits the unnecessary. It is a book for reference as well as for casual reading, it merits a cordial reception. Mechanical construction and illustratively it maintains the reputation of its publishers.

**HISTORY OF MEDICINE, WITH MEDICAL CHRONOLOGY, BIBLIOGRAPHIC DATA AND TEST QUESTIONS.** By Fielding H. Garrison, A.B., M.D., Principal Assistant Librarian, Surgeon General's Office, Wash-



ington, D.C., Editor of the "Index Medicus," Octavo of 763 pages, many portraits. W. B. Saunders Company, Philadelphia and London, 1913. Cloth, \$6.00, net. Half Morocco, \$7.50 net.

Here is a work that places in the hands of the profession a definite outline of the history of medicine together with a large number of important facts which are of use to him in his daily work and enriches his medical culture. Clear, concise, containing a mint of information; not a prose section of a compilation of figures and dates.

A study of the history and the lives of the leaders of our profession is a profitable past-time—one that should be indulged in by every physician and surgeon. It exerts a broadening influence upon such a student.

The author has covered the subject in a manner never before attempted. It is a periodic narration beginning with Egyptian medicine, and covering successfully the Sumerian, Greek, Byzantine, Mohammed, Jewish, Medieval Renaissance, 17th Century, 18th Century, 19th Century and 20th Century periods. At the same time the cultural and social aspects of each period is considered. In the appendices there is a complete medical chronology; Bibliographic notes for collateral readings on the histories of Medicine, Medical biography and histories of special subjects. A complete index of personal names and of the subjects covered completes the work.

It is a volume exhibiting a vast amount of painstaking and accurate compilation of facts and historical data. It should be in the library of every physician. Above all things do not neglect owning this work.

**SURGICAL CLINICS OF JOHN B. MURPHY, M.D., At Mercy Hospital, Chicago. Volume II. Number VI. (December). Octavo of 186 pages. Illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.**

This number completes the second volume of the Clinics of Dr. Murphy, and maintains the standard set by previous numbers. Foremost is the talk on Tuberculosis of the lung; production of artificial pneumothorax by injection of nitrogen, and Dr. Murphy's development of this method of treatment. This alone is of interest to every internist. The other case reports are: Bone cyst of the Radius, Pyelonephrosis, United Fractures, Ankylosis of the Elbow, Laminectomy, Undescended Testicle, Cholelithiasis, Student's Clinic and a list of cases demonstrated at the recent Clinical Congress.

The value of these clinics has been established and each number demonstrates their worth. If you have missed securing the past issues we recommend that you do not neglect subscribing for the third volume—they bring Murphy's Clinic to your very door.

### Miscellany

#### THE "GREATER" FIELD OF ATOPHAN.

The striking and therapeutically so valuable selective action of Atophan and its tasteless derivative Novatophan upon the uric acid output of the organism and the regulation of the purin metabolism has been the subject of an already very long list of publications, chiefly from the pen of European clinicians and pharmacologists of note.

More recently, however, American scientific investigators, too, have been attracted to the study of

these most interesting substances and have in every way confirmed the earlier findings.

Prof. Otto Folin and Dr. Henry Lyman of the Biochemical Laboratory of Harvard Medical School, Boston, have contributed an article "On the Influence of Phenylquinolin Carbonic Acid (Atophan) on the Uric Acid Elimination" to the *Journal of Pharmacology and Experimental Therapeutics*, July, 1913, in which for the first time the effect of Atophan medication upon the uric acid of the blood is made the subject of thorough investigation. This has been made possible only by the introduction of the new and very exact colorimetric uric acid test of Folin and Denis. In every one of the six cases of gout in which Atophan was given under purin-free diet, the medication led to a pronounced increase in the uric acid elimination and a corresponding reduction of the uric acid content of the blood.

Prof. Howard D. Haskins of the Physiologic and Biochemical Laboratory, Western Reserve Medical College, Cleveland, reports in the September issue of the same publication under the title of "The Effect of Atophan and Novatophan on the Endogenous Uric Acid Excretion of Normal Men," the results of his experiments with twenty-one medical students who were apparently in good health and who had been kept on a purin-free diet for at least one week before Atophan or Novatophan were administered. Sixteen of these showed an increase of urinary uric acid excretion of over 200 milligrams, four a noticeable but lesser figure and one, no increase at all. The author concludes that the action of Atophan does not merely consist in stimulating the kidneys to abstract from the blood a greater quantity of uric acid than they otherwise would, but that the main effect of the drug is to drain uric acid out of the blood, leaving the uric acid content of the latter subnormal.

While both these investigations add still further scientific evidence to the superior qualifications of Atophan and its derivative as therapeutic agents in gout and other manifestations of the uric acid diathesis, it should not be forgotten that entirely independent of their uric acid "mobilizing" action, these substances possess marked analgesic, antipyretic as well as powerful antiphlogistic effect. This has been very conclusively demonstrated clinically by Prof. Klemperer of Berlin, who disposes of an experience covering the use of approximately 20,000 fifteen-grain doses in nearly 300 cases of acute polyarthritis treated at the Municipal Hospital, Moabit during the past two years (*Therapie der Gegenwart*, June 1913).

A most convincing demonstration of the powerful antiphlogistic effect of Atophan and its derivative has been furnished by Profs. E. Starkenstein and W. Wiechowski of the University of Prague in the entire suppression in guinea pigs treated with Atophan, of the violent chemosis following ocular instillations of essential oil of mustard (*Prager Medizinische Wochenschrift*, January 16th, 1913).

Atophan and Novatophan will therefore also be found of the greatest value in lumbago, muscular rheumatism, neuritis, otosclerosis and generally in all painful inflammatory conditions whether uratic or non-uratic in character.

**LACTIC ACID FERMENT PREPARATIONS IN N.N.R.—** Assertions that the lactic acid ferment preparations on the market are worthless caused the Council on Pharmacy and Chemistry to examine those admitted to N. N. R. While past examinations showed this class of preparations to be most unreliable, the present market supply was found to be satisfactory. The products examined were Fair-

child Culture Bacillus Bulgaricus, Lactic Bacillary Tablets, Fairchild, Lactampoules, Fairchild, Bacillary Milk, Fairchild, Bulbara Tablets, H. W. Co., Massolin, Schieffelin. (Jour. A. M. A., Dec. 6, 1913, p. 2084).

**SANATOGEN.**—The fundamental objection to Sanatogen is not its outrageously high price, but the attempt to ascribe to a mixture of casein and glycerophosphate powers not possessed by these ingredients. The claim that Sanatogen is a "nerve food" is an absurdity as is any claim that the casein in Sanatogen has a greater food value than the casein in ordinary milk. Physicians who have given fulsome puffs for Sanatogen are invited to study the claims which are made for it—the following being one: "\* \* it revivifies the nerves, promoting sleep and helping digestion. \* \*" (Jour. A. M. A., Dec. 6, 1913, p. 2085).

**THE VALUE OF ECHINACEA.**—While most extravagant claims are made for the drug, the Council on Pharmacy and Chemistry concludes that, on the basis of the available evidence, echinacea is not entitled to be described in New and Nonofficial Remedies as a drug of probable value (Jour. A. M. A., Dec. 6, 1913, p. 2088).

**TEXAS GUINAN.**—The Texas Guinan World-Famed Treatment for Corpulency (Texas Guinan Co., Los Angeles, Cal.) appears to be the latest venture of W. C. Cunningham, of Marjorie Hamilton's Obesity Cure fame. It is exploited by follow-up letters giving the experiences of Texas Guinan, an actress, and offering the preparation at a sliding scale of prices, ranging from twenty down to three dollars. From an analysis made in the A. M. A. Chemical Laboratory it appears that an essentially similar preparation may be obtained by mixing one pound of powdered alum with ten ounces of alcohol and enough water to make one quart. A second specimen which was examined in the Association's Laboratory contained no alum or alcohol and appeared to be a tragacanth preparation of the "vanishing lotion" type (Jour. A. M. A., Dec. 13, 1913, p. 2173).

**COLLOIDAL PALLADIUM.**—A preparation of colloidal palladium, under the proprietary name Leptynol, is proposed as a means of causing the absorption of adipose tissue. The preparation appears one of the many thousand proprietaries produced abroad in the past year and put on the market after meager experimental work (Jour. A. M. A., Dec. 13, 1913, p. 2179).

**DOWD'S PHOSPHATOMETER.**—According to its inventor this is a device "for taking the phosphatic index or pulse of the nervous system." Its originator Dr. J. Henry Dowd, M.D., Buffalo, N. Y., writes enthusiastically of his instrument and of "Comp. Phosphorus Tonic." The phosphatometer is a scientific absurdity which pretends to determine the amount of phosphate in the urine and thus to measure "nerve metabolism." (Jour. A. M. A., Dec. 20, 1913, p. 2258).

**ANOTHER "CANCER CURE."**—Denver newspapers advertise that the International Skin and Cancer

Institute of Denver claims to have a cure for cancer. The "cure" is exploited by one John D. Alkire. No doubt those afflicted with cancer, and those who believe themselves afflicted with cancer, will flock to Denver for the "cure." The actual victims of the disease will of course die, but there will be the usual number of recoveries from non-malignant sores that will be heralded as "cures" and thus will make the venture a profitable one. To the honor of Denver it may be said that some of its newspapers refused the advertisement (Jour. A. M. A., Dec. 20, 1913, p. 2248).

**PA-PAY-ANS (Bell).**—An analysis, included with the report of the Council on Pharmacy and Chemistry rejecting the product, failed to find one of the constituents claimed to be present in the preparation—the constituent after which the medicine appears to have been named, namely papain (Jour. A. M. A., Dec. 27, 1913, p. 2314).

#### THE MECHANISM OF THE STOMACH AFTER GASTROENTEROSTOMY.

Outland, Skinner and Clendening (*Surgery, Gynecology and Obstetrics*, August, 1913) have made a careful X-ray study of the mechanism of the stomach after gastroenterostomy, as a result of which they have come to the following conclusions:

Gastroenterostomy, if properly done, is a drainage operation.

After gastroenterostomy, if the stoma is at the lowest part of the stomach in the erect position, the food leaves the stomach almost exclusively by the gastroenterostomy opening.

Under these conditions the stomach is emptied with great rapidity.

Gastroenterostomy should be done only in the presence of pyloric stenosis, or pyloric spasm due to duodenal or gastric ulcer.

The gastroenterostomy opening should be made large and placed as close as is permissible to the pyloric antrum.

In cases in which the gastroenterostomy opening does not quite drain the stomach, the food leaves both by means of the stoma and the pylorus. Even in these cases, however, the stomach empties itself faster than normal.

The clinical failure after gastroenterostomy are probably due to the cases of faulty implantation of the stoma.

#### PITUITARY EXTRACT IN OBSTETRICS.

Rowland in the *Maryland Medical Journal* for July, 1913, says pituitary extract is efficient to finish abortion, when begun, and to induce labor in conjunction with other remedies. It is inefficient alone.

It will usually cause advancement of the head, if the cervix is half dilated.

Its most brilliant successes are obtained in the last half of the second stage, where it will frequently save delivery by forceps.

It probably causes little or no damage to the child.

It should probably not be used in toxic cases, especially those with high blood-pressure.

Glass and tube drains should never be allowed to rest against a large bloodvessel (*e. g.*, the epigastric, the internal iliac). They may cause fatal erosion. —*American Journal of Surgery*.